

THE AMERICAN School Board Journal

Founded March 1891 by WILLIAM GEORGE BRUCE

Volume LIX, Number 4

OCTOBER, 1919

Subscription, \$2.00 the Year



HIS GRATEFUL UNCLE

SUPERVISION IN THE PRIMARY GRADES OF OUR VILLAGE AND CENTRALIZED SCHOOLS

J. M. Diley, B. S. B. Ped., Superintendent, Grand Rapids Centralized Schools

Primary supervision while one of the vital duties of the superintendent is likely to receive less attention than it actually deserves. The average superintendent has all too little time for supervision work and I believe is rather inclined to use a large half of this time, with the upper-grade work. However the primary grades are deserving of his best attention. It is here that traits of play and work, of character and study, are formed that will persist thru life. It is here that initiative is fostered and genius is discovered and cultivated. Never is the child in school so plastic, so adaptable as in these early years. It is, therefore, self evident that efficient teaching fostered by efficient supervision must make these years yield rich harvests of useful knowledge.

It may be well at this time to define efficient supervision. Briefly, it is that supervision that provides proper environment and stimulus for teacher-growth and classroom ability. Its effect is to open up larger fields of action, to lighten the daily burden and by careful judgment, criticism and praise lead on to better teaching and bigger results.

The first duty of the primary supervisor is that of organizing a course of study. This work is paramount in importance. Obsolete material must be omitted and work offered that will function early in child life. The innate connection that exists between home and school must be cultivated and reflected in the work offered. Minimum essentials must be established. Modern teaching methods and aids should be included in the course to aid the teacher. Standards of achievement must be set but they should be elastic enough to fit the conditions under which the work is offered. Both teacher and superintendent must early learn to expect only the possible.

The superintendent must also be responsible for the proper equipment of the rooms and for the purchase of needed supplies. It is essential that a careful study of primary grade needs be made by every superintendent and that every effort be made to have these needs supplied. Otherwise the teacher can well be compared to a skilled workman that has all the knowledge of the work in question but lacks tools with which to accomplish results. A superintendent of one of our Middle West states recently wrote 125 school-heads asking the amount of their last year's expenditures for primary grade equipment. Of these 125 superintendents, only twenty submitted definite answers. In other words 84 per cent of the supply ordering in question was haphazard and entirely without system or thought. If this data is typical it would indicate that we err in letting this matter depend entirely upon requisition on the part of the teacher or upon necessarily superficial board action.

Another important duty of effective supervision in these grades is attention to the physical condition of the pupil and the sanitary condition of the room. The location of physical defects, capable of remedy, the testing of air, ventilation, temperature and light conditions, a healthy interest shown in child activities, leading to recreation oversight—these are a few of the many things under this head that call for attention. We ought not expect good results unless we offer healthy material and hygienic conditions.

I need only say in passing that effective supervision will include the regular attendance of pupils. A teacher can no more be expected to get good results without this help than a car-

penter can be expected to build a substantial house with one-half the material absent.

The fifth duty in primary supervision concerns the testing of results. It is generally conceded that an efficient supervisor must have a working knowledge of the units and scales now in use for testing educational growth. He should early recognize the splendid opportunities they offer for accurate, impersonal measurement of actual achievement. By use of material of this nature he can base subsequent opinion or rather judgment upon established proof instead of upon report or assumption.

Last of the supervision duties, but perhaps first in importance and in complexity, is that of improving teaching ability. This end should be ever in the mind of the supervisor. Every class visited, every plan or suggestion offered, every criticism made should have this end in view. Here as no where else the supervisor must know his ground. He must have the knowledge of pedagogical fundamentals, of lesson types, of child nature, that will make his counsel worth the having. He must have the tact and sympathy that will enable him to criti-

cise without leaving a feeling of hurt or anger. He must be capable of supporting his judgment with principle and to make himself known as a helper in every sense. He will early learn that judicious praise of good work coupled with timely suggestion is often better than much criticism, in the improvement of teachers.

This then, is the task given to the primary-grades supervisor. It is hard. It calls for a large outlay of time and effort but it is essential. I do not declare that the supervisor can or should do all this work alone. He will and should secure the cooperation of his teachers in much of this work. But in the operation of this system of supervision he will be responsible for the securing of desired results, which summarized are: (1) that proper subject matter be offered and useless matter discarded; (2) that proper equipment and supplies are furnished; (3) that the physical and sanitary conditions be made good as possible; (4) that regular attendance is compelled; (5) that results be judged by scientific testing, and (6) that the teaching efficiency be increased by every possible means that will encourage growth.

FREE AND EQUAL

Fred J. Ward, Brockway, Mont.

Mr. White is superintendent in a thriving little town not far from where I live. I have known him for a long time, but until recently, I have not had a chance to visit his system since five years ago.

At that time, five years ago, his schools had the air of well being. The grounds and equipment were well kept up. The teachers were well paid,—for teachers. He showed me a generous program of extension. The tax rate was not excessive.

I visited Mr. White a few days ago. I expected to find a marked development after five years' of work for Mr. White is a man of great force and vision.

What I did see opened my eyes to the defects in our system of school taxation. His district is bonded to the legal limit, and still new buildings are needed to provide for a rapidly growing attendance. Every year his board has to call a special election to enable them to levy taxes in excess of the rate allowed by law. The commercial club of the city has to subscribe generously to keep the schools going. In spite of these heroic measures, the budget is rarely met and Mr. White is in a dilemma for he expects nine or ten of his best teachers to resign because his board cannot raise the salary scale to meet the rising cost of living.

Here is how Mr. White explains the situation: "As you know in our state, if there are ten pupils in a section of any school district and the parents of these pupils wish to form a new district by withdrawing from the parent district, they can draw up a petition to the county superintendent who must then make the division. The north end of this town has the railroad shops and a good share of the freight yards. There have never been more than three or four families living out that way and I never thought it necessary to build them a schoolhouse, but I made arrangements with the railroad company to bring the children down on the morning way freight, and we sent them back in a school wagon at night.

"Three years ago two new families moved up north of the roundhouse. That brought the

number of children of school age up to ten and certain wise-acres began to whisper about that they ought to cut off that part of town into a new school district. And so they did, and they certainly made a thoro job of it. They shaved off the roundhouse, the railroad shops, a good part of the freight yards, and fifteen miles of railroad that extends northward up into the bad lands of the Missouri River. They cut our valuation nearly in two and played havoc with our whole system, ostensibly for the sake of those ten children, but actually to shield a few tender hides from taxes.

"Since they formed the new district, they have conducted a one room school six months out of the year. They have never made a special levy of more than one mill. I have done everything in my power to have that district dissolved and added to mine but those people shiver when they contemplate our tax rate of 45 mills and fight the proposition down.

"And the joke of the whole situation is that more than half of those pupils in that district come to my schools to be educated."

Mr. White's case is not so extreme as some people might think. Since I had a talk with him I have made a map of the seven eastern counties of our state. I divided these counties into school districts and colored these school districts according to their respective tax levies. It certainly makes an interesting study. It is a regular crazy-quilt of a thing and all the colors of the spectrum had to be used to show the different shades of taxation.

I find one town with no levy outside the county high school, county general, and state levies. The principal there writes me that they have abundant funds and last winter his board bought a thousand dollars' worth of liberty bonds with the surplus money in the treasury. Another town, maintaining a school system nearly identical to that in the first town has to levy the limit and still is cramped for funds. The only reason why the people in the two districts have to pay unequally for equal school facilities is that two railroads run thru the first district

(Continued on Page 109)

DEMOCRACY IN SUPERVISION

Frank M. Rich, Paterson, N. J.

Dr. Frank M. McMurtry says that the weakest spot in education today lies in supervision. He keeps rubbing it in, and many of his colleagues support the same opinion.

To those of us who have chosen to spend our days, and indeed a good many of our nights, in this field of work, this statement is bound to come with something of a shock. If Dr. McMurtry were less keen as an observer, we could ignore what he says. If we did not look around and see other supervisors just as ambitious, as industrious, as well-informed and as intelligent as ourselves, we could blandly assume that it is not we who are at fault, but the other fellow. If the same opinion did not keep cropping up here, there and everywhere we could forgive our enemies and forget it. But the criticism is searching and insistent. We may as well face the issue. If we at the pinnacle of the teaching profession are not to be immune to censure, upon what grounds do they attack us? If there is anything worth consideration in the criticism, where does the trouble lie?

In certain particulars, at least, it seems fairly apparent that supervision is rapidly growing better. The mechanical aids to administration have been greatly improved in the past few years. Matters that used to be left to personal opinion and snap judgment in the old days can now be carefully measured. With standardized score cards, a dozen independent observers can enter a system and make independent ratings of any feature—buildings, appliances and instruction—and agree within two or three per cent in their total scorings. We have scales that tell us to a hundredth how well a pupil of any grade should be able to read, write or reckon or even to draw or darn. By giving one of the general intelligence tests and then comparing the marks with those the teacher gives these pupils, we can, by means of correlation formulae, determine, with mathematical exactness, how well that teacher is measuring up to his opportunity in developing and using the native intelligence of the pupils in his class. These are but samples of a multitude of aids that have been brought in in the last few years to make school management as exact and as scientific as finance or commerce or agriculture and decidedly better than the rule of thumb methods left it in the old days. What lack we yet?

The importance of business methods and scientific management is not to be gainsaid; but merely a moment's reflection makes it apparent that analysis and computation, important as they are, are still secondary to having something worth while to compute. Nobody will dispute the importance of accuracy and system in tabulating costs, charting profits, locating leaks, frequently overhauling stock, and setting down the frankest inventories in education as in any other occupation. If it pays a firm to key its advertisements, and keep tabs on its salesmen; if it pays the dairyman to weigh and test the milk and feed of each cow separately; if it even pays a poultryman to use trap nests and keep an egg record for each fowl on the premises, it will pay the school administration to take considerable pains—more than are taken by any system I can mention—to find out rather definitely who is doing the work and who are only boarders.

The educational score card, borrowed from the animal husbandman and poultryman, is a good idea. The trap nest and the egg record are admirable for anyone who is ambitious to do more than simply keep a comfortable home for a lot of chickens. But did anybody ever hear of a hen's laying harder because somebody was figur-

ing up the profits? No mere record in poultry keeping can take the place of fresh air, green feed, and a well filled crop at night in boosting production. Pardon the comparison; it is not altogether suitable. But one point is obvious: Let the administrator select his flock and tabulate returns as rigidly as time, funds and politics will let him. Still, nine-tenths of the game is not tabulation and elimination, but infinitely painstaking nurture and care.

It is the lack of this nurture and care—a failure to take into account the great personal equation which forms the major part of anything so human as education—which has created so much discontent and dissatisfaction, and resulted in such a feeling of opposition to supervision among teachers of the rank and file. A recent bulletin of the St. Paul Grade Teachers' Association is prefaced: "We, the teachers of this broad land, who are the mute recipients of so much wisdom from the mighty, find, now and then, rising in our American trained hearts, a desire to advise our advisers; therefore, we have devoted this issue of the Bulletin to the 'gentle art' of supervising." Then follows twelve small pages of very wholesome material, original and selected, ending with the clause: "And just so far as any supervisor fails to give true help to any teacher under her charge—just so far may be the measure of her failure."

"True help!" What is it? Is it to take all the planning and constructive thinking to oneself and leave only the drudgery of execution to another? Evidently this does not harmonize with the avowed American training of the St. Paul sisterhood. Probably "in this broad land" it is more or less of a failure everywhere. Most of our people prefer to live in democratic organizations where they can feel the effects of their own mistakes and successes, rather than ride supinely on the back of an autocracy however provident and efficient, and miss the chief joy of life, which lies in the opportunity to work off the energetic, restless, creative desires of one's nature by action in a world that is real. Life, liberty and the pursuit of happiness loom large in any scheme of government that is democratic.

But the chief advantage of living in any scheme of democratic government lies not so much, perhaps, in the fun of having a finger in the pie as in the fact that a wide-awake, intelligent democracy is more effective. Given a group of people who are agreed upon what they want and who are able to make themselves understood, then the more individuals and plans there are to choose from, the greater the probability of finding those that will succeed. Autocratic power is often more prompt than democratic, but by no means more efficient in the end. Granted that an autocratic leader may represent the pinnacle of all-round wisdom; granted that a miracle has happened and we have found a quick hitter who is also a deep thinker, and have made him supreme. His general score of proficiency is higher than all others; he is near the top in many things; in some few he outdoes everybody. Yet in a few respects is he not bound to be inferior to others? Somebody can reach farther, or add quicker or crawl thru a smaller hole. Even a half-witted creature, helpless with rheumatism, will be a better prophet of coming storms. In their fields each specialist is supreme, and to make them give way in every case to him, not only galls them and produces demoralization of spirit, but cheats the group out of the more competent handling of the case. An ideal of democracy has been stated: "Whosoever will be great among you shall be your min-

ister: and whosoever will be chiefest, shall be servant of all." Democracy respects one who aspires to be a leader, but it cannot abide one who insists upon being the whole show.

The value of democracy and of a training for democracy among the pupils in the classroom is beginning to be felt in a movement to motivate the work and to socialize the recitation. It seems never to have occurred to the old time master that the pupils might, now and then, have been able to suggest something more interesting and even more profitable than even he could invent. He felt that it would indicate weakness to tolerate, much less to encourage advice and assistance on the part of underlings. Their part was finished when they did as they were told. Now we are steadily learning to turn to better account the individual initiative and the collective good sense that even little children display; to the end, not only that they may have the pleasure and inner growth that comes from making and executing their own decisions, wherever possible, but that the course of study and the method of the recitation may be enriched by material that children alone of all people are able to supply.

It requires, of course, rather unusual breadth of mind and discernment in a teacher to be able to find genuine worth in the work of those who are, in general, so much below him in skill and experience. It requires even rarer qualities of character to be willing to sacrifice one's own desire to lead, to talk, to work out pet ideas, and instead, give the preference to some one of the learners, whose projects are barely as good as the ones he himself has originated. It is a good deal to ask of a fond parent that he choke his own offspring and give their places to a lot of unkept foundlings, however lusty some of them promise to be. But recent developments in the teaching art seem to indicate that a teacher who is a sufficient master of himself to be able to democratize schoolroom procedure, who provides for pupils' initiative, growth and satisfaction even in preference to personal satisfactions of his own, has hit upon a pedagogical principle unmatched since the days when old Socrates demonstrated that no conclusions are effective unless the learner does the thinking for himself.

And all of additional value that can be accomplished by the teacher who is keen to secure self activity and cooperation of the pupils, can be accomplished by the supervisor who is alert to make use of the same spirit among his teachers. And far more can be secured in supervision, for the differences in judgment and ability between supervisor and teacher are negligible, as compared with those between teacher and class. If pupils, now and then, prove to have plans, choices and subject matter as good as or superior to the teacher's, how much more often has the teacher some element to suggest that will be superior to the supervisor's?

A teacher told me yesterday of an interview with her drawing supervisor. This supervisor is very artistic, gets remarkable results, has a magnificent yearly exhibit. Most of the teachers, however, hate the work, and the pupils do only as much as they are forced to do in the schoolroom. The supervisor instructed the teacher to give the making of a poster advertising a flower sale for the next art lesson.

"But," the teacher objected—she was very young and did not know any better—"this class has no flowers for sale. May we not make some other kinds of posters that we could give to the storekeepers of the neighborhood, or something else of practical value?"

The supervisor raised her eyebrows, pursed her mouth a little and answered coldly, "All the 4A teachers in this system are making flower posters."

The young teacher, who had had an idea, drew in her horns and stuck her head into the yoke with the rest of the cattle. Like many others, the art lady is a very artistic supervisor in everything but supervision.

The art of successful supervision is, of course, unique, and yet there are strong analogies between it and other persuasive callings. It has points of resemblance to the art of salesmanship. There are salesmen, of course, who know ways to inveigle customers into subscribing for things they do not want, and then trusting to the sheriff to make the deal effective. This however is considered poor salesmanship in the long run. The good salesman knows that his customer's confidence, justified and unshakable, is the biggest single asset in his business; and that such a confidence can be gained only by a rather searching study of his needs, a very adroit handling of his prejudices, and an unfailing record for delivering the goods.

There are little traits of character that must be reckoned with in both salesmanship and supervision and one is egotism. A very successful writer on salesmanship says, "If for any reason I wished to impress a man with the true glory of Niagara Falls, I would contrive to have a picture taken of the falls, with the man himself showing large in the immediate foreground, and then give him a copy of the picture to study and admire." The moral is that we are all so constituted that we want to see ourselves in the picture somewhere, if we are to take any very vital interest in the surroundings. Teachers are no exception to the rule. As much as possible of themselves, their own inspirations, ambitions and affections, have got to be, somehow or other, woven round that job of teaching school before the work can go with verve and dash. If many teachers in isolated spots with no help and the crudest apparatus are working themselves to the bone for a mere pittance, while many more in big systems, at good salaries and with everything provided, can only be got to yield a grudging minimum of half-hearted service, the explanation can be found in the fact that one group has identified their own ambitions and satisfactions with the work itself, while the others see in the work only so much annoyance and confinement for so much money. A changed attitude is one of those things that can sometimes be caught in a properly baited trap, but it eludes those who go after it with a gun. The bait used will depend somewhat upon the game sought. One thing is certain; it will not be got solely by the bitter pill.

The St. Paul poet in the "Bulletin" mentioned above is very modest in what she asks of "That Supervisor":

"Oh, woe," she cried, "'tis surely true,
We are but grown-up children too.
A kindly glance—a smile or so,
A word of praise goes far I know."

Little kindly human attentions once in a while have their effect, if only good wishes on a picture post card. A great many little things find a place in democratic supervision.

Another page in the "Bulletin" points a moral from the fable of a Roman general who rebuilt a habit of success in his beaten army by beginning again with easy victories. "Teachers rarely build success upon a sense of defeat—" it says, "rather they build success upon a sense of success." A teacher who can get his class to a point where they can do one thing in a superior manner has given the supervisor a priceless opportunity to give merited praise, to bring visitors to see the work, to write up the idea for the



JAMES STORER,
Secretary, Board of Education,
Buffalo, N. Y.

Mr. Storer, who has just returned from military service, has entered upon his duties as secretary of the board which he left to enter the army. Following his enlistment in July, 1918, Mr. Storer was assigned to the psychological examining board at Camp Dix, N. J., where he had charge of the mentality tests for soldiers. In December, 1918, he was transferred to the Base Hospital at Camp Dix, where he was given charge of the educational work. With the transfer of the educational service to Hampton, Va., he was given his honorable discharge from the service.

Mr. Storer is a graduate of Cornell University. He was formerly an instructor at the University of Illinois, at the Eastern Illinois Normal School, and he is the author of a number of articles which have appeared in various educational and technical journals.

press, and in every possible way to build up a righteous sense of pride and satisfaction so that it will become a habit with him to go on earning more and more.

The pride and satisfaction that the teachers take in the system as a whole are likely to be measured by the individual contributions they have been allowed to make to the system. And democratizing the system so as to make use of all the good ideas from the ranks is not simply a bait thrown to the mass to keep them contented, but a measure of solid efficiency. The revision of a course of study becomes an admirable project for the whole teaching force to work upon. If for no other reason than to get the teachers to thinking, studying, experimenting, it would pay to let the teachers have a responsible part in the making of a curricula. The curriculum making furnishes a specific purpose for holding meetings, for gathering data, for weighing values, and for using the results of the work. The teachers have read, talked and learned things for themselves, and the result, like the Baltimore course of study, is a very superior piece of workmanship.

Likewise the selection of textbooks can be made the means broadening the teachers' equipment, improving the selection, but more than all, giving the teachers a personal interest in their own work. I see no reason why the making of a budget and the award of bids could not be, in some measure, decided by those who have to use the material; nor, in many cases why the choice of janitors, assistants and possibly of colleagues could not be partly decided by a democratic vote. It would be hard to think of a case where a lowering efficiency would be the effect of such a course. Doubtless the construction and selection of cards and methods for scoring and rating could also be put on a more cooperative basis with good effect.

Of course democracy in supervision is not the panacea for all the ills of school life. There re-

mains the irreducible minimum of the immoral, the constitutionally lazy, the mentally effete. Psychology, theoretical or practical, does not show how everybody can be altogether remade.

For all the evils we endure,

Either there is, or isn't a cure.

If there is a cure, let's try to find it.

If there isn't a cure, then never mind it.

The cureless situations in education must either be eliminated with as little outcry as possible or else let alone. If there are teachers who by rights should be addressing envelopes or watching sheep or digging graves, poor things, and they are irrevocably wished upon the schools, the rule of helpfulness* still holds.

I remember a good lesson I learned in my early days as supervisor in a scattered section of Vermont. A little school of a dozen pupils was taught by an old lady, a good motherly soul, but with the dreadful teaching methods of a hundred years ago. I usually stayed with her a half day, and ate my lunch with her at noon, and being ambitious, talked volubly on the principles of teaching with the hope of giving her a better conception of modern education. But in spite of all I said about expressive reading, or illustrated arithmetic or written spelling, and in spite of all the illustrative lessons taught for her benefit, she continued to teach the same old stuff in the same way. One day during a pause in my peroration she remarked cordially, "Well, I've been awful glad to see ye. Your visits do me lots o' good. I love to hear ye talk!"

When I had recovered sufficiently I said, "I appreciate that compliment, Mrs. A——, I really do. But now in the few minutes that are left, is there not something I can do that will be of real help in the work of the school?"

"Wal, naow," she answered briskly, "if you really feel like workin', I wish you'd work some o' them examples in the back o' Raub's arithmetic. I never knew how some o' them was done."

I tackled an atrocious problem about how many 16 ft. boards in a fence around a square field of such a size and that the number of acres equalled the number of boards. It was a terribly old-fashioned problem, and I hated to see it inflicted upon the school, but it satisfied an ambition of the old lady when, for the first time in her life she could teach it, and it strengthened her in the opinion of the upper grade. Best of all it got her into the habit of seeking help from the supervisor when she needed it, and not simply trying to enjoy the supervisor's talk. A supervisor is certainly working at a big advantage when he can give help in response to a felt need.

Any discussion of democracy in education must suggest Dewey, whose criterion of the worth of any society, ethically or educationally is summed up in the questions, "How numerous and varied are the interests which are consciously shared? How full and free is the interplay with other forms of association?"

Applied to the school organization the questions become: How much more does the teacher see in the supervisor than one of the snags that lie between her and her monthly salary? How much more does the supervisor see in the teacher than merely a means of putting his own particular plans and ideas into operation? How well do they understand each other and the community for which they work? How full and free are their means of communication, each with the others? If each looks upon the others as mutual friends and confidants, sources of inspiration and appreciative criticism, means of doing more things more easily and with more satisfaction than they could possibly do alone, their joint product will be something infinitely better than the hostile, buck-passing disaffection too often apparent in organizations of the strait-laced,

(Concluded from Page 109)

THE DIFFERENTIAL IN INITIAL SALARIES PAID TO GRADE AND HIGH SCHOOL TEACHERS

Prof. Clifford Woody, University of Washington

(Conclusion)

4. Scholastic Ability and Its Influence on the Differential.

(a) *Superintendents' opinions*—It has been previously noted in Table IV that of the 34 superintendents who ranked the series of reasons for paying higher salaries to high school teachers meeting the minimum eligibility requirements than to elementary school teachers meeting similar requirements eleven marked "high school selects higher type of scholastic ability" "1"; ten marked it "2"; while thirteen indicated that it should have little or no value. About all this means is that a good majority of the superintendents believe that this fact should have weight in the proper determination of salary adjustments. Some of the superintendents may have confused "scholastic ability" with more extended preparation, but ten of twenty-nine superintendents plainly stated that they would favor paying the high school teacher more even if the eligibility requirements were the same. Most of them justified their positions by saying the "high school selects a higher type of scholastic ability".

(b) *Evidence from teacher training institutions*—The following question was asked the chairman of the committee for the placement of teachers: "In your institution do you note any tendency for the high school to select as teachers students of a higher type of scholastic ability than does the elementary school?" Of the 25 colleges and universities making reply to this question twenty replied in the affirmative and five in the negative. Of the 31 normal schools (institutions primarily interested in the training of teachers for the elementary schools) 23 report in the affirmative and only eight in the negative. In each of the above mentioned cases the teachers under consideration were *inexperienced* in teaching and were *graduates* of the various institutions and consequently differences in amount of experiences and training are not influencing factors. From these answers then one must conclude that under present circumstances the high school tends to select a higher scholastic ability.

(c) *Evidence based upon initial salaries commanded by graduates accepting positions in elementary and high schools*. Evidence corroborating the assertion of the colleges and normal schools that "the high school selects a higher type of scholastic ability" is gleaned from a consideration of salaries paid to the

graduates of the various institutions accepting positions in the elementary and secondary schools as furnished by the chairmen of the committees for the placement of teachers. Fortunately, a majority of these colleges and normal schools are training both classes of teachers and the graduates of these institutions may elect either type of position.

Table VII presents the differences in the average initial salaries commanded by the graduates of the 2 year normal courses who accepted positions in the elementary schools and those who accepted positions in the high schools. Similar tabulations were made for the graduates of the 3 year normal courses, the 4 year normal courses, and from the college and universities, but since the main interest lies in the differences in the salaries merely a summary table setting forth the distribution of the differences is presented. It should be emphasized that in these tabulations all comparisons are based upon equal amounts of education.

TABLE VIII.

Summary Distribution of Institutions Showing the Amount of Increase in Initial Salary Commanded by the Graduates Accepting Positions in High School Over Those Accepting Positions in the Elementary Schools.

Amount of Increase	Graduates of 2 Year Normal Course	Graduates of 3 Year Normal Course	Graduates of 4 Year Normal Course	Graduates of College or University	Total
\$225	0	0	1	0	1
0	2	5	2	0	9
00-25	0	0	0	0	0
25-50	1	0	2	1	4
50-75	0	0	1	2	3
75-100	5	2	2	1	10
100-125	3	0	1	1	5
125-150	4	0	1	1	6
150-175	1	0	0	6	7
175-200	1	0	1	1	3
200-225	1	0	0	1	2
225-250	1	1	1	1	4
250-275	0	0	0	2	2
275-300	1	0	1	1	2
300-325	1	1	2	3	3
325-350	1	1	1	1	1
350-375	1	1	1	2	2
Over 375	—	—	—	1	1
Number Institutions.....	19	9	15	22	65
Reporting Median amount of increase	112.50	0	92.75	170.70	127.07

Table VIII shows that when the various individual groups are considered as one group that

the median amount of increase commanded by those graduates who accept positions in high school is \$127.07, when the groups are considered individually the amounts of increase vary from zero to \$170.70¹.

From the three lines of evidence submitted it seems that there is some justification for the claim that the high school selects a higher type of scholastic ability and consequently this factor should have some weight in the determination of the differential. It seems from the facts in Table VIII just and reasonable that this factor be awarded at least \$100 in the adjustment of initial salaries.

5. The Teaching Load and Its Influence in the Differential.

In order to test the assertion of the superintendents that the teaching load should have little or no weight in the determination of the differential, the teachers of three large high schools and of twelve elementary schools in Seattle were asked to estimate the total number of minutes devoted to an itemized list of activities during a designated week extending from Monday morning to Monday morning.

In tabulating the data furnished it was thought wise to classify itemized activities into four distinct groups, "University or normal extension work" and "reading professional literature" were called "self-improvement activities". "Preparing to teach next day's lessons," "looking over pupils' papers", "making out school report", "visiting homes of pupils", "attending school meetings", "supervising school activities outside regular school hours", and "helping individual pupils after school" were called "school activities". "Exercise for recreation", "attending movies, theaters, etc.", "general reading for recreation", "practice in music, art, etc.", "social games", "conversation with friends", and "correspondence" were called "recreational activities". Home duties, household work, gardening, "gainful occupations other than school work", and "time spent in going to and from school", were called "home activities". In passing it should be said that the primary interest in this investigation is in the amount of time devoted to school activities and that the figures for the other groups are valuable only as corroboratory evidence.

¹Only nine institutions have two year and three year normal courses and the number is so small that the zero median is insignificant. The addition of a single case could raise the median from zero to \$100.

TABLE VII.

Difference in the Average Initial Salaries Commanded by Graduates of the 2 Year Normal Courses Accepting Positions in Elementary and High School.

Institutions.	Average Elementary School Salary.	Average High School Salary.	Difference.
1	\$600.00	\$720.00	\$120.00
2	800.00	825.00	25.00
3	720.00	810.00	90.00
4	680.00	787.50	107.50
5	810.00	945.00	135.00
6	600.00	750.00	150.00
7	600.00	700.00	100.00
8	750.00	950.00	200.00
9	540.00	540.00	.....
10	630.00	720.00	90.00
11	585.00	720.00	135.00
12	540.00	630.00	90.00
13	558.00	697.50	139.50
14	675.00	675.00	.....
15	742.50	885.00	142.50
16	675.00	750.00	75.00
17	540.00	720.00	180.00
18	273.00	500.00	227.00
19	710.00	800.00	90.00

TABLE IX.

Total Number of Minutes Devoted During Week to Various Activities According to Grade Groups.

		School Activities.						
		High School	7 & 8	5 & 6	3 & 4	1 & 2	Total	Total
		Grades	Grades	Grades	Grades	Grades	Gr. 3-8	Gr. 1-8
No. of Teachers	104	(144) ¹	56	51	63	70	170	240
1st Quartile	600.0	(525)	600.0	622.5	663.7	495.0	581.2	544.6
Median	890.0	(830)	837.5	815.0	827.0	660.0	830.0	770.0
2nd Quartile	1250.0	(1220)	1190.0	1047.5	1139.4	835.0	1127.5	1034.0
Recreational Activities.								
1st Quartile	517.5	(520)	620.0	532.5	652.5	747.5	617.5	669.2
Median	770.0	(792.5)	920.0	915.0	925.0	1055.0	920.0	945.7
3rd Quartile	1085.0	(1152.5)	1550.0	1167.5	1368.7	1365.0	1356.4	1359.0
Self Improvement Activities								
1st Quartile	26.8	(30.0)	81.4	62.8	56.9	81.6	64.6	68.6
Median	92.7	(104.0)	170.0	126.4	97.5	180.0	134.3	139.4
3rd Quartile	225.0	(236.0)	315.0	235.0	242.5	367.5	259.3	315.0
Home Activities								
1st Quartile	400.0	(390.0)	504.0	472.5	562.5	663.7	525.0	565.0
Median	725.0	(717.5)	734.0	815.0	815.0	995.0	776.0	826.2
3rd Quartile	970.0	(1152.5)	920.0	1227.5	1253.7	1266.8	1133.7	1205.0

¹The figures in parentheses represent the three high schools. A majority of teachers in one school objected that the designated week was not typical and it was thought best to present two sets of data, one excluding the returns from this school and the other including them.

Comparison of gross amounts of time devoted by high school teachers and the elementary school teachers as presented in columns one and eight of Table IX shows that the load imposed by high school teaching is considerably greater than that imposed by elementary school teaching, the medians and each of the quartile points indicating this fact. Computations based upon the medians show the amount varies from eight to fifteen per cent depending upon whether the median for the elementary school is compared with the medians for the three high schools or with those for the two high schools. However, when the figures for elementary school are differentiated into grade groups as shown in columns three to six of this same table it becomes evident such a conclusion is unfair to a majority of elementary school teachers. Column seven shows the amount of time devoted by the teachers in grades three to eight inclusive is a shade greater than the amount of time devoted by the teachers of the three high schools and only seven per cent less than time devoted by those of the two high schools. This seven per cent probably becomes insignificant when it is recalled that the teachers in one of these two high schools made estimates on the week following the designated week and in all probability they devoted more time to school activities than usual.

Column six shows that the teaching load imposed in grades one and two is considerably less than that imposed in any other group—a comparison of the medians showing the amount of time devoted to school activities being at least 30 per cent less. The inclusion of the figures for this group of teachers with those of the other groups in the elementary school reduces the figures for the total group about eight per cent and this fact furnishes the basis of the assertion previously made that a consideration of the gross figures for the elementary school teachers as a group would be unfair to a majority of those within the group.

When consideration is given to the other three groups of activities, viz., recreational, self-improvement, and home activities, the figures show that the teachers in grades one and two devote considerably more time to each group of activities, than any other group, and the high school teachers a little less time. There is no very marked difference in the amount of time devoted to these activities by the teachers in grades seven and eight, grades five and six, grades three and four. The totals for grades three to eight inclusive show considerably less time devoted to these activities than devoted by the teachers in grades one and two but more than devoted by the high school teachers. It is interesting to note that the teachers in grades one and two devote considerably more time to self improvement activities than any other group and that the high school teachers devote the least time of all.

From the facts cited concerning the amount of time devoted to school activities, recreational activities, etc., one must conclude that the superintendents were right in their contention that the teaching load imposed was a fact of minor consideration in the determination of the differential. The evidence indicated that the teaching load was considerably lighter in grades one and two and that it might be slightly heavier in high school than in grades three to eight inclusive, but the amount (sixty minutes per week for twelve minutes per day, if based upon the figures of the two high schools) was so small that it seems wise to ignore it. It must be concluded then that the contention that teaching in high school imposes so much heavier load than teaching in the grades is true only in certain instances. If the factor of the teaching load is accepted as a principle to have weight in

the determination of the differential, it would obviously be unfair to make a blanket discrimination between high school teachers and elementary school teachers as groups. The only fair procedure would be to differentiate the elementary school teachers, and the high school teachers for that matter, into various groups according to the teaching load imposed and weigh each group on the basis of these findings. Such a procedure is the logical outcome of the acceptance of the principle. It seems fair and just, but leads to many administrative difficulties and in all probability will be neutralized by other factors.

It has been previously noted that the teaching load imposed upon the teachers of grades one and two was considerably lighter than in any other grades and according to the acceptance of the principle stated above they should receive a smaller salary. But this factor does not work in isolation and the constant cry for good primary teachers, suggesting the influence of demand and available supply, will offset the fact of a lighter teaching burden and will operate to keep their salaries on the same, or even on a higher plane than other elementary school salaries. Thus the influence of the teaching load is neutralized by the law of available supply and demand.

can safely be concluded that the women teachers in high school devote more time to school work than the men. Such a conclusion might argue for the payment of higher salaries to the women than to the men, but doubtless the demand for men teachers in high school will offset any such argument. Thus the principle of weighing the differential according to the teaching load imposed is again neutralized.

From the evidence set forth in this section, it has been shown that teaching in high school as a rule imposes very little heavier burden than teaching in most grades of the elementary school. It has been shown that in justice to all concerned the demands for a blanket discrimination between high school and elementary school teachers is unfair to the elementary school teachers, because their figures are unduly influenced by those of the teachers in grades one and two, where the teaching load is much lighter than in other groups. Lastly it has been shown that many forces are at work to neutralize the influence of the teaching burden as a factor in the determination of the differential. In the light of these facts it seems expedient and just and in keeping with sound administrative principles to recommend that the difference in the load imposed by teaching in the high school and in elementary school be given no consideration in the determination of the differential.

TABLE X.
Total Number of Minutes Devoted During Week to Various Activities by Men and Women Teachers in All Three High Schools.

	School Activities		Recreational Activities		Self-Improvement Activities		Home Work	
	Men	Women	Men	Women	Men	Women	Men	Women
Number of Teachers....	58	86	58	86	58	86	58	86
1st Quartile	520.7	555.0	515.0	525.0	42.2	24.8	355.0	405.0
Median	660.0	920.0	770.0	819.0	120.0	92.7	710.0	720.0
3rd Quartile	1212.5	1227.5	1250.0	1085.0	255.0	232.5	972.5	995.0

Another illustration showing the intricate implications of the acceptance of this principle is revealed in Table X showing the comparative amounts of time devoted to the various activities by the men and women teachers in high school. In comparing the medians in columns one and two of this table, representing the number of minutes devoted to the school activities, it appears that the women teachers devote about one-third more time than the men (the difference between 920.0 minutes and 660.0 minutes). However, this difference must be discounted to a certain extent for the comparison of the first and third quartile points of the distributions shows no marked differences in the amount of time devoted. Furthermore, the original distributions for the men was more nearly normal while that for the women was skewed towards both ends of the curve. These facts probably mean that the difference in the amount of time devoted as computed from the medians is somewhat exaggerated, but when the distributions are examined from all angles it is evident that the women devote a little more time to school activities. Comparison of the figures for the amount of time devoted to recreation, self-improvement, and home activities, shows the women devote a trifle more time to recreation and home activities, and the men more time to self-improvement. In no case are the amounts large enough that they cast suspicion upon the conclusions drawn concerning the teaching load.

Tabulations similar to those presented in Table X comparing the amount of time devoted by the men and women teachers in the three high schools in Seattle were made for each individual high school and the results invariably agreed with the conclusion just stated. Furthermore the findings agree with those of a similar study reported by the author in *School Administration and Supervision*, March, 1919. Consequently it

C. Summary and Conclusions.

The following points seem to be reasonably well established by this investigation:

1. The median difference in initial salaries paid to high school and elementary school teachers is \$250 while the range in the middle fifty per cent of the school systems is from \$200 to \$400.
2. It is clearly evident that tradition and local conditions have been largely influential in determining whatever differences happen to exist within the different cities.
3. There is general agreement that the difference in pay between elementary and high school teachers should rest chiefly upon the difference in the amount of educational preparation required.
4. The educational requirement for eligibility to teach in Seattle is in accordance with the general practice thruout the United States—i. e. for eligibility to teach in the elementary school graduation from normal school, (two years above the high school) and to teach in the high school, graduation from college (four years above the high school).
5. The returns from the colleges and normal schools show that each additional year of training above graduation from the two year normal course is rewarded by \$100 increase in salary in the open market. Since two years of additional training are required for eligibility to teach in high school, the additional preparation should be rewarded by a \$200 increase in initial salary. Such an amount is the equivalent of considering this additional preparation as an investment.
6. Some of the superintendents contended that ideally there should be equal preparation for the two groups and consequently equal pay but others contended that even with equal preparation the pay should not be equal. All agreed that the difference in preparation required was the cause for difference in present salaries.

7. The amount of experience demanded for eligibility to teach depends largely on local conditions, and since it is rewarded in the school system where it is acquired, it should have no influence on the determination of the differential for initial salaries. However, experience over and above the eligibility requirements should be given consideration in placing the teacher within the salary schedule.

8. There appears to be a demand for a higher type of scholastic ability for the high school than for the elementary school work. The returns from the colleges and normal schools indicate that the inexperienced graduates from the various courses who receive appointments in the high school usually receive a little over \$100 more than those who receive appointments in the elementary schools.

9. The burden imposed by teaching in high schools in Seattle is very little heavier than that imposed by teaching in grades three to eight inclusive, but is considerably heavier than that in grades one and two. A blanket discrimination between high school and grade school teachers as such is obviously unfair. An acceptance of the principle of allowing the teaching burden to influence the differential is just, but many factors tend to neutralize its influence and it will introduce many intricate administrative difficulties. As the difference in the teaching load is very small it seems expedient to recommend that until the teachers are willing to accept the extended application of this principle it be given no consideration in the determination of the differential.

10. On the basis of the above enumerated

facts and deliberations it appears that the differential in initial salaries should not be less than \$300. It is probable that this amount might be somewhat increased if data were available to evaluate the significance on high school salaries of the demand of men teachers, a demand which most of the superintendents felt would have some influence. In the absence of such data it might not be amiss to establish \$350 as the differential in initial salaries, certainly not more than that amount for it seems that the influence of this demand for men teachers makes itself felt *not so much in initial salaries as in later salary adjustments*. If these facts are true then it must be concluded that the \$300 differential adopted by the school directors in Seattle in 1907 was a fairly accurate and reasonable adoption.

THE LAW, THE PROPHETS, AND BILL

Albert S. Davis, Englewood, N. J.

There is an old saying that it takes all kinds of animals to make up a menagerie. The statement, in my opinion, has some merit. In a somewhat similar way it may be said that it takes all kinds of boys to make up a school.

The following concerns my relationships with a certain bad boy named Bill.

In my experience I have found it true that there are a great many of these "bad boys" named Bill. I suspected this the first day I taught school. Most young teachers, I fancy, early make this discovery, along with the interesting fact that the majority of children are born idiots. This last, because the idea, that children come to school to learn things the teacher already knows, sometimes fails to occur to the fledgling instructor.

In my younger days I recall having asked an old and tried teacher if she believed in corporal punishment.

She drew herself up on her record of thirty-five years and solemnly assured me, albeit there was a suspicious twinkle in her eye,—

"Young man, when I first began teaching school I didn't believe in corporal punishment. After I had taught school three days, I decided that capital punishment is too good for most of them."

Let's forget the astonishing and contradictory fact that so many "bad boys" and "natural born idiots" turn out well. Let's turn our attention to Bill—"the prince of all bad actors"—to quote the words of one teacher of my acquaintance.

With this pleasing peroration, we are now ready to introduce my friend Bill.

Just by way of beginning I might say that my friend Bill was not exactly my friend at the outset. Absolutely and positively not. Nor do I recall that I had any idea at first that I would ever be very likely to allude to him, then or in the future, as "my friend".

I had heard a lot about Bill from his father before I ever came into contact with the boy himself.

"Just because I am a member of the board of education, I don't want you to favor my boy Bill," said he—"You'll find the others all right, but Bill is certainly an anxiety to his mother and me. All we ask for him is a square deal; and, mind you," was his further warning, "keep your grip right on him from the start. He has a villainous temper, is constantly in trouble in school, and can't get along with anyone."

Some boy—Bill!

Well, two or three days after school opened, Bill appeared on the scene, sent to the office by an indignant teacher, whose note informed me "that she was thru with him for good."

Bill and I promptly cleared the decks for action.

Had I not received the benefit of previous information, I do not believe I would have sized him up as the terror so graphically portrayed by his father. Bill was a strapping big fellow, probably 16 years old; his head met his shoulders squarely; his chest was deep; he had a quick, nervous walk, planting each foot squarely on the ground as he moved along.

Bill looked at me and I looked at him.

According to all the rules of Hoyle, I should have first read the note; next I should have scowled; third I should have cleared my throat, turned around in my chair, heard his story that "he hadn't done nothin'," and then socked it to him.

However, this sort of treatment has been tried before, and Bill was probably expecting it as we sized each other up. Strange, isn't it, the way children learn the ropes so quickly?

As I recall it, some fortunate impulse prompted me to say, "Well, you don't look like a bad boy."

"I must be, though," came the quick reply.

"Who told you that?" I countered.

"Most everybody."

"Well, are you?"

Bill hesitated a moment and then said, "No, I'm not."

"Well, then," I queried, "what's the idea?"

Once more the boy squirmed in the chair.

"Say, look here," he blurted out, "don't you know that a boy can't be good all the while? He's got to do something to have a good time once in awhile, hasn't he?"

Can't be good all the while; has "got to do something to have a good time once in awhile."

It struck me *hard* that Bill had possibly some justification on his side, after all. And, mind you, he hadn't been bad to me—except by proxy.

The boy waited uneasily while I thought over the situation. Finally I turned to him again—"Bill, do you know what I'm going to do?"

"Send me home, I suppose," he mumbled.

"No, I'm not; I'm going to give you something to do to have a good time. Go on back to your room and I'll think it over. Only," I observed as he rose, "I want you to come down here first when you can't stand it to be good any longer, and tip me off. How about it?"

Bill looked at me for a moment, and, I could have sworn a twinkle came in his eye.

"Why, sure, I'll do that," he said, and went on out.

Since I had gone thus far, it looked as tho the proposition was fairly up to me to see it thru.

Late that afternoon my wife and I went for

a walk out across the railroad tracks. The grass stood high along the roads, the houses were scattered; the walk ended abruptly in a meadow.

There was Bill, and with him a few others. As we drew nearer we saw what was going on. The boys, not over six in number, were practicing with a football.

Bill came over to us as we stood there looking on and observed that "as usual nobody had showed up for practice."

"Well, what is your coach doing about it?" I asked.

"Nothing," he answered, "because we haven't any coach."

I looked around the field a little. The grass was knee high; if there had ever been any field marked out there were no visible evidences.

"Where do you play your games?" I asked.

"Haven't any games, and if we had any we'd play here."

"Where are your goal posts?"

"Haven't any," came the stereotyped answer.

A high school with two hundred students in a small county containing a dozen high schools. No team, no coach, no field, no goal posts. And boys who "couldn't be good all the while."

I began to wonder a little more. What else were the boys lacking?

Baseball team the year before?

"Sure, but the teachers busted it up; they laid us off because our marks weren't up."

Had the faculty helped the boys any in raising their marks?

"No; they said 'school is school; you can study or not just as you please'."

Some cooperation—what?

So it went, on down the list of ordinary school activities. I learned that teachers "weren't hired to teach outside of school hours." In other cases the boy was a "hopelessly bad boy; I have to get after him with a sharp stick pretty often." And, again, "of course, after you have taught school as long as I have, you'll find out that you must not mix too much with the pupils; they will lose their respect for you."

And so on. All the old alibis were produced; the big stick was hauled out for my inspection; the delinquent records were laid on my desk; and a good many "between you and me's" were whispered into my ears.

Now what are some of the fundamental characteristics of a good school? Loyalty to school is certainly one such basal characteristic. How can you produce loyalty? By constant nagging, fault finding, and waving of the rules? Or by making the school a pleasant school; by showing the children that you can have good times in school as well as work,—and by helping them

have these good times, and joining in, yourself? Common sense answers these questions; but I have a suspicion that once in awhile we schoolmen are so busy getting examinations ready that we have no time for common sense.

The general local method was reflected in several very concrete ways; the pupils didn't like school; the town was a great feeder for nearby private schools; and the turn-over in enrollment was appalling.

I began to believe that a little less "school", perhaps, and a little more fun might make a change for the better. Certainly, matters would stand some improvement!

Two or three days later, our music director undertook to organize an orchestra. I had suggested this, believing that such an organization might be a source of enjoyment for the students, and that it would give us a chance to get a little closer to them.

The notice was posted on the bulletin board requesting all candidates to meet in the auditorium directly after school.

As I was on my way home from the building, late in the afternoon of the meeting, I met the music director who was very enthusiastic over the prospects.

I was glad to hear his informal report. Any thing at all encouraging was good news just then.

"By the way," he remarked, as he was leaving me, "that fellow Bill—— had the nerve to show up at the meeting. But I told him pretty quick where he stood."

"Why, what did he do?" was my somewhat startled question.

"Nothing; he said he wanted to join, but believe me, he won't have a chance," beamed the "capable teacher, and strong disciplinarian."

"But," I rather timidly ventured, "do you think that is altogether fair?"

My music man looked pityingly at me. "Why, that boy is the worst boy in school," he exclaimed.

"Have you ever had any trouble with him, yourself?" I asked.

"No, I haven't, but the other teachers have told me,"—

Sure! The cat was out of the bag. What chance does any boy have who is handed down from year to year as the model bad boy in the school? What's the use of trying to be good under such circumstances?

I went to Bill the next day and asked him if he liked music.

He looked quickly at me. "You bet I do!" he replied.

That night the music director and I had a little chat. The next day he sent for Bill, told him he was to have a chance, after all, and offered to help him buy his violin.

Two or three days after this I met Bill's father on the street. He stopped me, looked quizzically at me for a moment and asked,

"What are you doing to Bill down there at school?"

"Why, nothing much," I blurted out in some surprise.

"Well, Bill says he's getting a square deal"—

I wonder if common sense is not a part of the square deal? Which has the better reaction, to say "yes" or to say "no"? One can't always say "yes"; that is true enough,—but he doesn't always have to think in terms of "no".

One of the most unpopular and cordially disliked executives I ever knew invariably said "no" to any new proposition. Changing his mind later on, after he had thought matters over, and saying "yes" didn't take away the sting of refusal. If this attitude reacts unfavorably on a case hardened old school-teacher, how much more is it likely to react on a growing boy?

"The thoughts of youth are long, long thoughts."

So affairs went on for awhile. Bill occasionally came down to the office on an errand, but never because he had been in trouble. My practical friends on the faculty kept a close eye on him, however; I was informed, with many a dubious shake of the head, that "he must be getting ready for an awful rumpus; he was so good." Still, they left him alone; they followed directions well.

However, at last it happened.

One morning I heard a loud scuffling noise in the hall, followed by a thump and a muffled exclamation. The next instant Bill appeared in the doorway together with the science teacher. The teacher had Bill by the arm and I noticed with interest that Bill had a tight grip on the other's coat collar. Each tried to talk at the same time.

"Step in, gentlemen," I said in a resigned way. The worst had evidently happened. Bill had run amuck. The teachers were right. My heart sank for I had believed the boy had really meant business when he said he would behave himself.

The teacher's charge was direct and to the point; Bill had jumped from his seat, grabbed him by the collar and slammed him against the wall. While the teacher was disposed to recommend hanging as a suitable punishment, he was willing to compromise, provided Bill apologized before the school; this was to be followed by immediate expulsion.

I dismissed the teacher and motioned Bill to a seat.

There was a long silence.

"Bill, what's the idea, anyhow?"

Bill looked up and then down and mumbled—

"Oh, go ahead and get it over with."

"I won't do it until you come thru. What's happened?"

Inch by inch I wormed it out of him. He had been late to breakfast, and in consequence thoroly scolded by his father. On the way to school, in his hurry he had lost his science notebook. By the time he had recovered this and

reached school, the pupils were on their way to recitation and he was "late". When he had returned to the study hall from his first recitation he found that some one had "chewed" his book-strap. During his next study period, the teacher in charge had reprimanded him for talking; as a matter of fact he had answered an inquiry from the boy across the aisle as to the assignment for the day in French.

And so the day had gone up to the time when the science teacher had sneered at his note-book, and slashed the last completed page with a red pencil. Then Bill had moved—and moved quick.

In wrong? Of course he was in wrong.

Yet I want to ask you; just what do you do when every last thing goes wrong? Don't you sometimes slam things around yourself? Are you always a model of patience? What do you think when your breakfast is five minutes late? How much more we expect of these boys,—raw, growing boys!

Sure, we know how to handle them! Fire them out, and maintain discipline at all hazards! Boys have no business possessing nerves. I realized all this and yet, somehow, I felt that casting Bill out was absolutely the wrong thing to do. I told him to go home for the morning, and to return in the afternoon after school.

At noon that day the story spread around town like wildfire that "Bill had gone on a rampage". The teachers exchanged significant smiles; one or two of them, it seemed to me, fairly cackled in their joy at what had happened. One member of the board called at the office; he didn't find me in because I saw him coming.

The afternoon passed quickly enough. At four o'clock there was a rap at the door and Bill walked in.

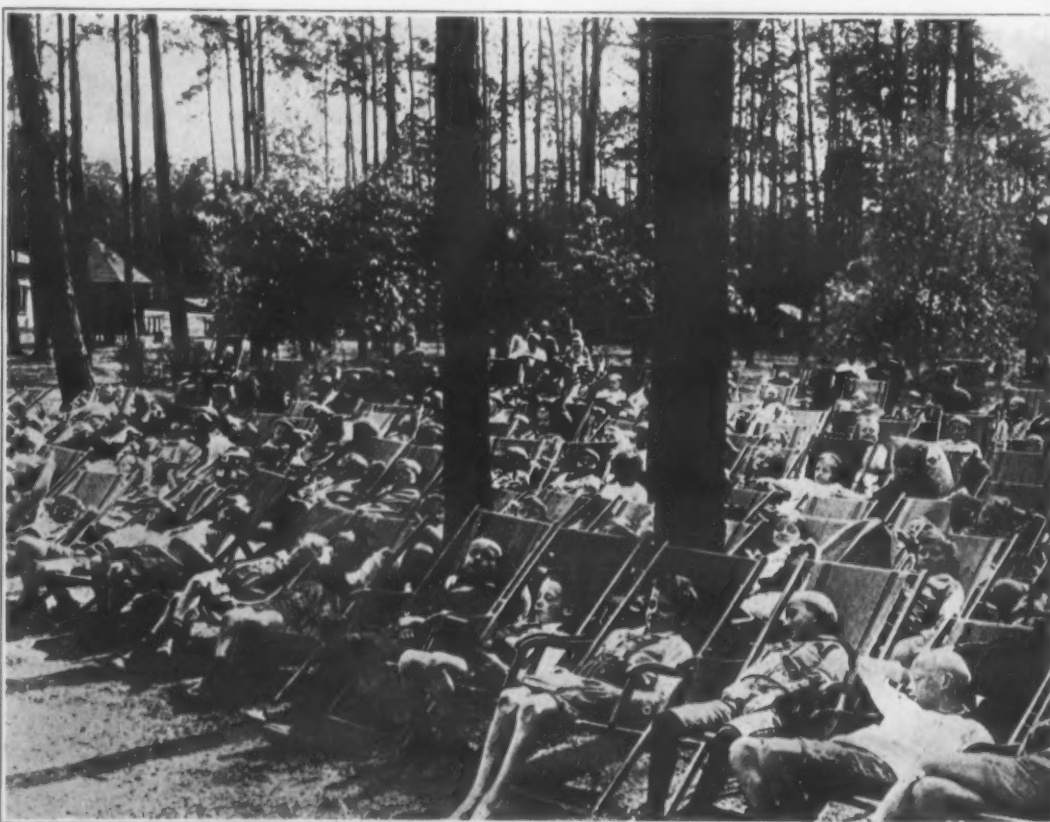
"Bill, we're in a dickens of a fix. How are we going to get out of this scrape?"

The boy looked startled.

"Why, you aren't in it."

"Well, I am, tho. Don't you know I'm pulling for you to make good?"

We sat awhile thinking it over.



Photo, Underwood & Underwood.

OPEN AIR TREATMENT FOR ABNORMAL GERMAN CHILDREN.

Scene in a woods in Berlin where open-air schools have been established to care for German children who have become abnormal as a result of famine. Open-air treatment is being used extensively to bring the young ones back to health. The photograph shows the children resting between school periods.

Suddenly Bill broke the silence. "I'm going up stairs and see what's-his-name and tell him I'm in wrong."

The next hour was about the most anxious I have spent in years.

At five o'clock my science teacher very quietly walked into the office.

"Have you fired Bill?" he asked.

"No, not yet."

"Well, I wish you wouldn't. I'm just wondering if I'm not a little to blame myself."

As he started to leave the office he hesitated and then came back.

"Well?" said I.

"I believe it pays to be square with the kids," said he. "I've been rubbing it into Bill pretty hard all fall. He told me this afternoon he had worked three hours getting that book ready, and I had spoiled it for him in a second."

"The fact is," he went on, "until this afternoon I never stopped to realize that the children are helpless; they have got to be good whether they feel like it or not. The teacher has all the advantage and it isn't square to forget that the children ought to have some show, at least."

That teacher has gone very far up the ladder since that afternoon! When a teacher realizes that sometimes there is something to be said on the other side, he is pretty likely to develop different ideas of discipline. Possibly, he is becoming a bigger man, himself.

There is a certain book that has considerable to say about the beams in one's own eyes. The principles of dealing with one's fellows as discussed therein are worth some consideration, at least. And the Teacher in this book understood children. I believe his suggestion that we should treat others as we would like them to treat us might well find some place in the schoolroom.

It's so easy to forget that the Golden Rule is also the Law and the Prophets!

Bill stood up like a man the next day, and before his fellows asked his teacher's "forgiveness for losing his temper".

And his teacher,—well, he said something to the effect that boys were human beings, after all; and he guessed there would be no more trouble.

There wasn't in that class the rest of the year.

The boys said the teacher was "square". They also said that they would stand by him, since he was willing to stand by them.

No, there was no scolding done, and I do not recall any symptoms of maudlin sentiment. Master and boys just dropped it, and there was the end of the whole affair.

Of course, I was jumped on by the Board—some of them. I stood my ground, however, and replied that I would take full responsibility for any further outbreaks.

There weren't any that year, and mighty few thereafter.

Question No. 1. If your own child commits an offense, what do you do—drive him out of home,—cast him adrift? Or do you patiently begin all over again? Possibly your own teaching hasn't been 100 per cent itself.

Question No. 2. Isn't it better to take a long chance if there is a question of a boy's career at stake, than to end your trouble by getting rid of it?

Children, I honestly believe, are sent to school to be educated in self control as well as in Latin.

Just how can self control be taught if those who are most in need of this teaching are thrown out when they break over?

Of course, there may be some boys so bad that their presence is an absolute danger to the school. But it takes more than one swallow, my dear friend, to make a summer. And, personally, I would be very, very sure that there was an entire lack of goodness in the boy before I turned him away.

Absolutely the poorest disciplinarian I ever knew was a high school principal who expelled on the average one boy per week. Expulsion sometimes is not discipline; it is a confession of inability to handle the boy.

We issued report cards every month. In October I found that one student's card was marked 98 per cent in deportment; the next card was marked 97 per cent.

The next time we had a faculty meeting I took this up.

"How do you get these marks?" I inquired.

"Why, we take all the teachers' marks in deportment, and average them up."

"Do you think this is fair?"

"What's better?" asked one of the faculty.

I thought it over a little and then broke another rule of Hoyle.

"Well, it strikes me that a child either behaves himself or he doesn't. Let's mark deportment in each class, hereafter, either satisfactory or unsatisfactory."

And we learned by experience that this scheme would work. Someway or other, the parents, too, appeared to better understand the expression, "satisfactory" than "87 per cent". It seems to me that the average father is more interested in knowing whether his boy behaves or not than he is in reading graduated per cents in deportment. Perhaps it is a little easier to understand. Not all fathers are accountants.

Further, just what constitutes 100 per cent in deportment? Can you establish such a standard to check against?

I met Bill out in the hall one day and asked him what was new.

"Oh, nothing much," he replied, "except my marks in my work."

"How's your deportment?" I asked.

Bill looked at me and grinned.

"Satisfactory," he said.

The fall wore into winter and came the time for appointment of teachers. I went to the Board and asked them to allow me to hire a teacher who could coach athletics as well as teach.

"How much extra is this going to cost?" asked the chairman of the teachers' committee.

"About three or four hundred dollars, I guess," was my reply.

"It isn't worth it!" was his quick answer.

Just about that second Bill's father took a hand in things.

"It's worth three or four hundred dollars to this town to look after our children a little bit," he ejaculated, "and it's going thru."

Bill's father was right; it "went thru".

That spring a community concert with the high school orchestra as a feature was a decided success. Bill played second violin. I didn't see him do anything disgraceful, either. His mother told me that "Bill was growing better as he grew older."

During the summer my new teacher-coach came to town and looked me up.

"Where is your athletic field?" was almost his first question.

My mind flew back to Bill's laconic answer of the year before—"Haven't any". It occurred to me, however, that this answer would not help matters a great deal.

"Let's find one," we agreed. So out we went.

We hunted all over town without much success. When we had returned to the office I think we both felt a little discouraged.

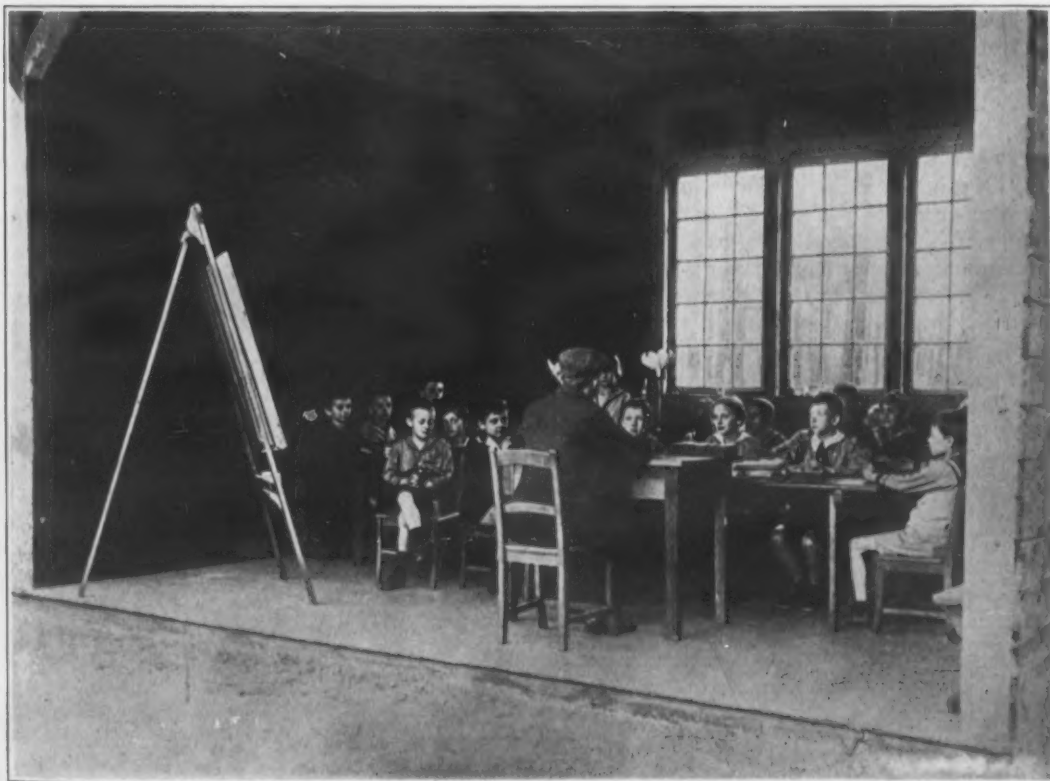
Over across the street from the school was a large open lot, ideal for situation, but lacking entirely in suitability for an athletic field as it stood. At one end of the lot it was frequently ankle deep in water where an adjacent hill drained directly into it. Of course, if some form of surface drainage were installed it might work out.

We took a look at it, anyway. Over on the far end we came across Bill and some of his friends. They were on their way to the river to "go in swimming". I introduced the coach to them, and boy-like they started questioning him.

"Where are we going to play football?" demanded one of the group.

"Where do you boys suggest?" countered the coach.

We all turned and looked across the swamp.



© Underwood & Underwood.

OPEN AIR STUDY FOR SUBNORMAL GERMAN CHILDREN.

Since poor weather prohibits them from holding sessions in the open woods, this class of subnormal German children is doing its studies in an open barrack. Open air treatment is being carried on extensively in Berlin to bring the younger war sufferers back to normal.

"Gee! This would be a good place if it could be fixed up," said one of the boys.

"Well, let's fix it up," exclaimed the coach.

The next day almost every boy in town was down on the new field. Some brought shovels, others came with wheel barrows, while Bill drove up in his father's truck, ready to "lug the dirt."

How the dirt flew! How those boys worked! And it was a strange sight at the end to see some sixty boys trundling lawn mowers around that ten acre lot when the grass had been cut with a scythe.

It took two whole weeks of good hard work to get that field in shape. Before we were thru, we were on pretty good terms with those boys. There is a certain good fellowship derived when master and boy struggle together to roll a heavy stone into a barrow. I believe it was hard work for all, that produced some of the spirit of democracy in the American army. We tried to outwork the boys, and the boys tried "to show up the old guys," as they tersely alluded to us.

There was some talk around town about what we were doing. A good many people dropped in to "look us over." Some of them became a little interested; others, much more so.

One man who was a civil engineer in the city brought out his transit and ran levels for us; later on he laid out the running track we built as an after thought. The superintendent of one of the factories sent us six loads of cinders to help us out. Then, to "be on the safe side," as he put it, he secured the use of the town's steam roller and rolled the cinders into the track. Steam roller methods had often enough been applied in that town previous to this occasion; but never before had the recipients been so thoroughly satisfied.

One afternoon one of the old stand-patters in that conservative town walked out on the field, watched the boys awhile, and then sidled over to where we were busily engaged in throwing rocks into a drain.

"Where do you calculate folks are going to sit?" he inquired.

"Guess they'll have to stand," volunteered one of the boys.

The old man said no more just then.

However that night he called me up on the telephone and asked me to come over to his house for a little while.

"I want to show you something," he explained.

I told my wife as I left the house that I would return in a few minutes. I reached home about twelve.

It was the old, old story I had heard; a story of another "bad boy" who had been thrown out of school; a "bad boy", bad because he had covered his sensitiveness with a thick veneer which was readily enough interpreted as antagonism, obstinacy and unwillingness. Boys, I expect, have not changed much in their dispositions, tho the times have changed.

The evening grew on; we still talked. Finally, protesting that I must really go home, I rose.

Out at the door we paused a moment.

"I'd like to do something for those boys," he observed. "If I should buy a little lumber we could fix up a pretty good place for folks to sit in. I like to watch the boys," he mused. "Would you care to have me do that?" he concluded.

Would we? Would we!

That "little lumber" and "a pretty good place for folks to sit in," finally resolved itself under the old man's direction into a covered stand seating two hundred people!

School began well that fall. Nearly all the boys returned. No one left to go to private school. We began talking college to them.

Bill had been taking a hit or miss course in a little bit of everything. While we had ac-

cepted conditions as we had found them, we had been correcting some of these conditions as rapidly as possible. One change consisted in a prescribed curriculum; the old scheme of taking a little bit here and a little more there was thrown out.

Just before school opened Bill dropped in to see me.

"Well, Bill, what can I do for you?" I queried, as I leaned back in my chair and smiled at him.

"My pop says I can go to college if you think I know enough," he replied.

I must confess I sighed a little—inwardly. One year of Algebra, six months in Roman History, two years of Manual Training, an incomplete two years of English, one year of Latin and so on.

Bill must have read my thoughts in my face. He turned away.

"Bill!" I called after him.

"I want to go to college—I'm willing to work," he exclaimed.

"All right, sir; go to it!"

Bill loaded up with six subjects that year and passed them, too; not only our own tests, but the college entrance examinations as well. However, that did not keep him from playing half back on our football team.

And study seemed to set well with the boys in general. We didn't bother much about their work. We simply put it up to the captain of the team.

"You mean you don't want a bunch of bums playing on the team," was his somewhat graphic summary.

"That's about the size of it."

"All right, we'll fix them!" he replied.

And they did. Indirectly I afterwards learned that the boys had a private meeting, and appointed a "fixing committee". During the season one boy was "fixed"—but not by us. That boy pestered the life out of the teachers for help in his work the following month!

How did our team fare during the season? Well, we won four games, lost two and tied in one. We played representative teams, too. It is unnecessary to go into details, but the coach and I advised the boys to play teams from really strong schools.

"Better to be beaten by a good team, than to beat a scrub team", was our advice. We were building for the future.

The boys put it somewhat differently.

"The bigger they are the harder they fall!" were the memorable words of our captain before one important game.

And we had a united school that fall. Our pupils marched to the games in a body; they organized a cheering section, and fairly lifted the ceiling of the auditorium the afternoons we allowed them to test out their lungs.

I went to the games, myself, and "sort o' looked after things a little," as one of the boys put it. As a matter of fact the boys invariably counted me in whenever they set out for their games.

And, believe me, I was proud of that bunch of young freeaters. I guess the boys knew it, too.

There was no Y. M. C. A. in town and the boys had spent a good deal of time—and money—in the movie houses in the neighboring city. Our own common council had decided ideas on licensing motion pictures as a commercial proposition in our town; consequently, for entertainment of this description there was the inevitable trolley ride and the inevitable late hours.

People seemed to be growing proud of our high school and there was considerable talk of a new building, together with a gymnasium. Further, there was no library; it was proposed to house this, also, in the new building.

Shortly after beginning my work here, we had formed a parent-Teachers' Association. This organization had done a good deal for us. To them I went with a new plan.

In substance, it was this; admitted that our interest in the boys and girls went further than the mere school day, why not bring motion pictures into town, under our own supervision? As for the proceeds, our proposition was to turn them over to a fund to be used for various community benefits.

We went to the council with our request. Inasmuch as the husbands of two members of our committee were aldermen, it was not particularly difficult to secure consent.

Thru the bank we negotiated a loan for \$750. This amount was large enough to secure a first-class second-hand machine with a stereopticon attachment, and a booth. One of our local electricians installed the machine and provided the wiring. We selected the auditorium of the old high school building as a suitable place to hold our shows.

They were a success from the start. We ran pictures twice a week—Tuesday and Saturday nights. One of our high school boys operated the machine; the former mayor of the town served as chairman of the committee in charge, while music was furnished by the high school orchestra. Occasionally, we held an informal dance after the show.

In six months time we had paid for the machine, bought a new screen, made several necessary improvements,—and held the boys in town two nights, at least, per week. When our bank account grew to \$500, we furnished the new high school gymnasium,—oh, yes, the town voted a new \$100,000 building. Then we organized a public library, and turned in \$50 monthly to its fund.

Community work of this description is calculated to interest a town; and an interested town is likely to be a little more ready to undertake worth while things.

Some of our boys suggested the organization of a club for the older boys in school. We took this up, after going over the proposition pretty carefully, and finally established with the boys an association known as the "Uppers". This organization was so named because we limited the membership to boys in the last two years of school. There were no restrictions on membership; when a boy reached the last two years of school, automatically he became a member of the club.

There were certain unwritten laws—we had no constitution—that prevailed in this organization. One was that the boys and masters met on an equal footing. This may seem a little hazardous. We did not find it so. Another unwritten law was that whatever might be said in one of these meetings would not be held against the boy or teacher after we had left the room, nor would it be repeated.

Our meetings consisted of talks to the boys on practical subjects by guests of the evening; various games in which boys are interested; a course in safety lessons; two illustrated talks on music, discussions as to the merits of various colleges; talks on business by local business men. Opportunity was always given and usually accepted for an open discussion directly after the address. One interesting talk was given by the employment superintendent of a large concern. At the close of each meeting we had a little music and a lot to eat.

And, friends and fellow citizens, we discussed the policy of the school! We were frank with the boys, and they were certainly frank with us. When they found that we would absolutely keep our word, and that we were really anxious to see things from their standpoint, it was astonishing how quickly we got together.

(Concluded on Page 109)

The Opportunity of Education in Medical Inspection

R. W. Fairchild, State Normal, Stevens Point, Wis.

There may exist in the minds of many people today, an exceedingly false idea that medical inspection of schools has reached or, at least closely approached, its goal of universal and perfected application. This idea has seemingly become so prevalent that many speakers and writers preface their remarks by a statement to the effect that there is a general recognition of the value of medical inspection, and then proceed to elaborate on a system which the majority of communities are not yet sufficiently convinced should exist, to give it a trial. These false impressions of the present status of medical inspection in schools, are often gained from a knowledge of conditions in the larger cities where there is often a good system of inspection, or perchance, come from association with conditions in the few states that have fairly adequate laws covering the subject. Or perhaps, it is that common human characteristic entering in, that causes the individual to hail a new program and almost in the same breath recognize it as a universal and perfect fixture capable of self-propagation, and then turn to another offering. Such an attitude on many school questions has occasioned the application, by other nations, of the term "faddists" to American educators.

The facts are that the United States is only in a very intermediate and unstable period of progress in medical inspection of schools when the lack of its introduction into communities of all sizes and types is considered; when the incompleteness and the inefficiency of so-called existing systems is studied; and when the utter inadequacy of laws in every state is known.

Hence it still remains necessary to even show the need for medical inspection to many localities altho 25 years have elapsed since the idea was first introduced into the United States. Because of such varying degrees of acceptance both in time and manner, medical inspection of schools has been so slow of growth that its real purposes and plan of organization have almost been lost from the sight of educators.

Need of Medical Inspection.

For many years the educational world has sought methods of improving the human mind. Books and articles have been written; lectures delivered; conventions called; associations formed; institutes conducted; surveys made; special schools and classes organized; curricula revised; in fact the whole educational system of the United States renovated, amended and re-assembled,—all in order that the minds of the youth of this country might be trained in the latest approved style and with the least amount of friction. All of this is very well in its place and very necessary to an appreciable degree. But what have we been attempting to train? In decidedly too many instances, weak physical structures, mere phantoms of what the human body was designed to be. Brilliant energy has been used with but meager results on children not incapable, but in many cases temporarily incapacitated by physical defects possible to correct. We must face the stern biological laws which teach us that an elaborate scheme of mental culture which proceeds without regard to the needs of the body, is but a house built upon the sands. It is impossible to successfully make a mental giant from a physical dwarf. It is not to be wondered at that school executives pondered long over the seeming incapacities, yes often charged as mental deficiencies, of their school children. It is not surprising that articles flooded the educational journals as to methods of improving the "plan of attack" in formal education.

For the first time in our educational history

the matter of hygiene of person and sanitation of environment as related to our schools, seems to be just forcing a complete entering wedge into the general school program. It is true that some localities, even some states, have been pioneers laboring in this unmolested field for a few years, but the bulk of the country remains ignorant to a large extent of the possibilities of medical inspection.

Movement of Recent Growth.

Medical inspection of schools is a movement of recent growth, altho the principle is by no means in its infancy and has long since passed most of its experimental stage thruout the world.

In France the law of 1833 charged school committees with keeping schoolhouses clean, while an ordinance of 1837 made it a special duty for teachers of kindergartens to watch over the health of the little children. Decrees of 1842 and 1843 ordered every school to be visited by a "school" physician. There was no money for this inspection, an appeal being made to the generosity of the medical profession. It was not until 1879 that salaries were paid inspecting physicians. In 1884 the medical service was organized on a new basis and the present system in France dates from that time.

Germany's medical inspection of schools dates from 1867 in Dresden, tho it was not until 1891 that a system of true medical inspection was established at Wiesbaden.

Altho England had attempted some work along health lines in the latter part of the last century, it was not until 1908 that a system of a thoro nature, was inaugurated. Rapid progress has been made until today England has a fairly universal system under the control of the educational authorities of each community,—perhaps the best system in all respects to be found in the entire world.

The progress of medical inspection in other countries has also been of comparatively recent time, ranking in the following order: Sweden, 1868; Austria, 1873; Norway, 1885; Hungary, 1887; Russia, 1888; Argentina, 1888; Switzerland, 1898, and Japan, 1898.

In the United States the first regular system of inspection seems to have been in Boston in 1894. Chicago in 1895 was divided into nine districts of about twenty square miles and a medical inspector assigned to each district. The New York City Board of Health in 1897 appointed 134 medical inspectors for public schools. In Philadelphia the system dates from 1898.

Spread in the United States.

Prior to 1914 only nine states had enacted even fairly adequate laws on any phase of medical inspection of schools. It is interesting to note that the legislatures of 26 states have had in their present sessions bills of varying degrees of efficiency brought before them for enactment into law. This is a big step in the right direction but many of these bills, like many of those already on the statute books of different states, are directed at the larger communities and do not even attempt to remedy the defects in the smaller and more remote districts. It is in the cities and towns of ten thousand and less than the present work needs to be done. Further, many of these laws and proposed laws are very narrow in scope and are designed to remedy some specific ill. At the present time the State of Massachusetts has the best and most universal law governing medical inspection of schools but even this law is not a complete one in reaching all localities in a mandatory form.

Outside of Massachusetts, there were but 212 cities in 1914 that had even so-called medical inspection. Many of the above number of communities had the control centered in their local board of health which administered affairs for the schools along inspection lines when they were not otherwise engaged. Women's clubs, commerce associations, county medical associations and volunteer organizations assumed charge in various communities and hence everybody's task became nobody's, especially after the novelty of the situation had worn off. Thus until the past five years little actual constructive work has been done in this country and even that has been limited for the most part to the larger cities. At the present time but 26 per cent of the children of public elementary and secondary schools of the United States are under an efficient system of medical inspection controlled by the educational authorities of the community. The bulk of this percentage is to be found in nine large cities.

The War as an Awakener.

The statement that there is "some good in everything" even in the horrors of war, is borne out in some of the lessons from the recent great world conflict,—lessons for which we as a nation have paid a very costly price. It apparently remained for this titanic struggle to show America the appalling deficiencies in the physical structure of her citizens. When we learned of the vast number of rejected men and the correspondingly large group of limited service soldiers, the majority of both groups sound in mind but defective in body, it merely proved the contention of hygienic authorities that the educational world has been building upon a weak foundation. The results of army examination have done more to arouse a complacent and sleeping public than libraries of books and untold myriads of speeches. The facts are before us; it is the facts that hurt and humiliate us, and well they should.

The National Education Association was quick to grasp these results of our short-comings and just as quick to incorporate a study of the situation into its brief and concise program for the present year. It is to be hoped that action will result from this study as no amount of talk will alter the conditions, in itself, as they are found today. With such an educational agency as this association working on this subject medical inspection of schools should receive such an impetus that the long sought for goal will be reached in a comparatively few years relative to the 25 that have already passed.

The health problem of medical inspection is not a passing fad. The conservation of the child is a problem which is bound to take possession of the minds of all thinking and reasoning people. Serious defects of eyes, ears, nose, throat, lungs, teeth, bones, glands, nutrition, heart action, nervous coordination and mentality have been, and are today, discovered with surprising frequency wherever they have been looked for. There seems to be no question in the minds of health authorities, from results recorded, that over 60 per cent of the school children of every community, regardless of size, location, wealth or social standards, are today suffering from one or more physical defects of serious enough nature to require skilled attention. While undoubtedly the school did not by any means produce all the defectiveness, yet the school must be the agency for correcting all deficiencies possible, regardless of their source.

Selfishness of Opposition and Inspection.

Unfortunately difficulties have arisen in some communities between the practicing physician

and the school physician. The contention of the family doctor that such matters should be left in his hands is very similar to the stand private teachers took in resenting the intrusion of public school teachers into the educational field. It is found in all communities to be, not a question of relieving the family physician of any of his functions, but of doing work he has left undone largely because time will not permit or because he is not summoned at the proper time. Usually a physician is only called in time of dire need. The school physician finds his work in detecting the slowly working and not-attracting, but surely culminating symptoms.

The opposition to health work in the schools comes from four sources chiefly, three of which are adequately advanced by Hoag and Terman. "One of these sources of opposition is the misconception as to the purpose of the work. At first some people get a very false idea that their children may be subjected to some strange kind of violence, forcible surgical attention, hypnotism and kindred imaginative possibilities. As the school health authority goes thru the community and his kindly interest in the children becomes known, this fear always disappears." These writers name the other two chief sources of opposition as the Christian Scientists and the League for Medical Freedom. The latter they describe as "The less worthy but more active and dangerous opponent of child hygiene measures." This organization is characterized as "being composed of 'sectarian' physicians, quacks and patent medicine vendors, whose main purpose seems to be to oppose all social restraints on medical practice and to preserve the divine rights of all kinds of practitioners, regular and irregular, to prey upon the gullibility of the people." It is apparently a question of recognized medical science on the one hand and quackery and superstition on the other.

Still another and rather common objection to medical inspection has arisen because of the belief that it is too paternal in its scope; that it takes away the responsibility from the parents. In practice, however, the reverse is true. Instead of taking away paternal responsibility, it develops responsibility because it increases their knowledge of their children's needs. The mere taking home of a slip informing parents of some defect or disease is not sufficient, for often the parents do not see the necessity for going to a physician. It is in such cases that a school nurse is valuable in making necessary explanations and suggestions.

Five Fundamental Reasons for Inspection.

Five great reasons why every school should organize and perpetuate an effective system of medical inspection seem to be very apparent and worthy of consideration.

1. *As a Measure of Prevention.* A competent and intelligent physician will recognize various troubles in their origin. It is much easier to check diseases at the beginning than after they have become well developed. Prevention is vastly superior to cure from the view point of personal comfort, financial stress, and educational economy as it means continued and better schooling of the individual pupil.

2. *In the Control of Communicable Diseases.* This control will make the school work steadier for both the victim and the classmate, for there will be a feeling of safety and immediate regulation in the instance of disease being present. It will avoid many epidemic panics common in many schools. All this is over and above the great common interest in saving human life.

3. *Remedy of Incapacitating Physical Defects.* Recent reports indicated that 23 per cent of the uninspected school children of New York City had defective vision and 56 per cent had defective teeth. The presence of adenoids and



F. A. NARAMORE,
Architect of the Board of Education,
Seattle, Wash.

Mr. Naramore, who has recently assumed the office of architect for the Seattle board of education and in this capacity is working out a building program for greatly enlarging the school facilities of the Seattle school district, is a native of Illinois. He was educated at the University of Wisconsin and the Massachusetts Institute of Technology and has had broad experience in general as well as specialized practice of architecture. As architect for the schools of Portland, Ore., he practically reconstructed the school plant of the city during the period of seven years from 1912 to 1919. Among the buildings which he designed are the well-known Franklin high school, the Benson Polytechnic school and a series of more than twenty elementary schools.

tonsils were equally common and many cases of ear trouble were reported. Medical inspection reveals such physical defects and their remedy is a lasting benefaction to both the child and the school as his mental efficiency is increased and he no longer is a drag on the class. When the "pressure" defect has been removed or remedied he assumes his normal capacity the same as other more fortunate children.

4. *Irremediable Physical Defects.* In the instance of the unfortunate group of crippled, deformed and delinquent of a permanent nature, medical inspection performs a great work in the proper classification and direction into proper channels of special education. Again the value is both to the individual and the school and even further,—to the community.

5. *Education of the Public.* The school has not fulfilled its duty when the child alone is educated within its walls. The school must be the educational center, the social center, and the hygienic center of the community in which it is located,—a hub from which will radiate influences for social betterment in many lines. One of the most important phases of medical inspection of school children is that which links it to the home. Medical inspection loses much of its efficiency unless its machinery be extended to securing the cooperation of parents in giving the children the necessary attention for the diseases and defects found by inspection. School influence should be exerted toward the correction of living conditions that affect the child injuriously. For this work the school

Democracy demands equality of opportunity, not equality of achievement. Education for the service of democracy demands that the ten talent man as well as the one talent man shall have opportunity to realize his utmost self. The high school in the service of democracy must individualize its pupils. Tho there be five thousand of them, it must know the problem of each. This is the supreme problem of the principal. With a proper delegation of duties, he may still be a Mark Hopkins or a Garfield. In the years immediately before us, the most vital educational work lies with the expanding high school. —Dr. J. L. Tildsley.

nurse is highly essential. They, better than the educator or even the physician, can succeed in bringing home the responsibility to the parents.

Such reasons as the above, and others of equal import, appeal to the thinking taxpayer because they inevitably make his investment of taxes more remunerative. There is no doubt but what there is much public money wasted even tho the intentions in a considerable number of cases are of the best. Here in medical inspection is found a big plug for the stoppage of such leaks, an expenditure returning the highest of dividends in the form of improved children mentally, morally and physically; smoother running, more efficient and more economical school systems, and a more healthful, happier and prosperous community. Is the initial expenditure in instituting such a system worthy of a trial? Disregarding even the chance elements of success that we should take when human welfare is at stake, the universal success of medical inspection is its best recommendation to communities of all sizes and types.

Health Boards and Inspection.

It is one thing, however, to establish a system of medical inspection; another to make it succeed. Much of the success or failure will depend upon the organization and the individuals doing the work.

With all due respect for boards of health and the work they have accomplished, medical inspection and supervision of schools can never be the real success desired for this important phase of school work until the control is centered in the educational authorities of the community. Experience along this line shows several objections:—

1. Too much emphasis is placed by health boards on the mere prevention of disease. Other defects and causes leading up to them are generally overlooked. The examination of pupils for contagious disease is a relatively unimportant part of the inspection. Not more than 5 per cent of school children need to be excluded in an entire year. However, there are at least 80 per cent of pupils having non-contagious defects that need the care and attention of educational health authorities. It must be admitted that much unsatisfactory work has been done by educational authorities and relatively good work by boards of health in many localities but the failures of educational authorities have been due chiefly to inadequate organization, lack of tact, and often insufficient funds to properly administer the work,—all of which defects may be remedied while failures of boards of health have been for the most part due to non-remediable conditions.

2. Boards of health are not in a position to make such adjustments of educational processes as may be necessary to care for the needs of the school child. Attempts to do this generally lead to a conflict between the health and educational authorities.

3. Since boards of health are not a part of the educational machinery, teachers are not so easily interested. The child is a unit and any attempt to divide mind and body by a dual system of educational control is sure to violate this unity.

4. If boards of health are functioning in the proper way in their various communities they have all they can properly attend to and any help in matter of school hygiene is generally from the generosity of their hearts. Where hygiene is dependent on such willing aid it must take what it can get in way of time and effort, while if it pays for service rendered and holds some one person or group of persons responsible, results may be expected. We at least pay for what we get if indeed we do not get about what we pay for.

(Concluded in November Journal)

The Efficiency Department In a School System

Supt. Frank A. Gause, Bay City, Michigan

No modern factory of any pretensions is without its efficiency checking department. Quality of materials, quality of workmanship, quantity of output, economy in saving of time and expense,—all are checked with such minuteness of detail that expense is reduced to the minimum, quality and quantity raised to the maximum. When an "I" beam or a piece of machinery, or a whole machine makes its exit for the user, there is small chance that he will not get, under reasonable conditions, value received for the dollars he invests.

But what can be said in this connection of our educational output? Are we measuring and testing and evaluating here with any such definite certainty? Do we test the material that comes to us with a view to making out of it the product best fitted to its peculiar quality? Do we make comparisons that result in the minimizing of waste? Do we test the output to determine whether the workmanship is the best that could be done with the material at hand?

Most efficiency work, in its last analysis, is nothing more nor less than comparison. The work of measuring abilities, of determining upon a reasonable standard of accomplishment must come from comparison of a particular individual's performance with the highest and with average results. It, therefore, becomes a matter of measuring large numbers of attainments in a school system if we are to determine upon reasonable attainment in the various grades and subjects. The development tests in interpretative reading, in language and arithmetic are more specifically for the purpose of determining limitations or range than for actual measurement of the efficiency of a school system. In these kinds of tests we look for results in fixing limitations of attainment for children in certain grades and of certain ages. Having determined rather accurately the range of a grade we are then prepared to make our courses of study. The efficiency department may then follow with its specific function of determining how well the teaching corps of a school system is doing its work. This latter aspect is the subject with which this paper proposes to deal, and the plan discussed is the one which has been in vogue for four years in the Bay City schools.

The Efficiency Department.

The efficiency department is composed of a director, two assistants, in the office and thirty teachers who assist in giving the tests. The head of the department and her two office assistants make out the questions, examine the papers, record the results and make up graphic charts showing the progress made. The teachers giving the tests are chosen for their peculiar fitness for this kind of work. No teacher, however, is permitted to give the test in her own building. By such a scheme fairness to all is guaranteed and the results are of an altogether impersonal nature.

The Questions.

No trick or catch questions are given. Only such questions are given as will test the child's advancement in the course of study and his ability to do the work ahead of him. And the questions are all of a practical character. In arithmetic, for instance, the testing covers the rapid and accurate manipulation of the fundamentals, the practical applications of decimals and the other principles involved in the daily life of after years. Answering those who will probably raise the objection that they do not believe in formal examinations, it may be said that there are certain things that the child must

know if he gets on in after life and if the schools are doing their work as it should be done, pupils will be able to indicate on paper the character of the work done. Then, the test is by no means a formal examination of the long-drawn-out type. As a rule only one question is given in each subject and not more than four or five minutes is allowed in which to do the work. The test is aimed directly at the teacher. If her work is satisfactory the pupils will be taken care of, and one question in a room of thirty-five pupils gives the tester as accurate a judgment on the teacher as four or five times that number of questions.

The Tests.

Tests are given as often as five or six times a term. The afternoon before the test the testing teachers are called to the office and given the questions. All questions are carefully gone over in order that there be no mistakes. The next morning these teachers are given the right of way and by noon the entire system has been tested. The questions are of such a character that any child up to grade will have no need of asking about them, so no comment of any kind

is permitted and the children are left to "go it alone". When time is called all papers are folded and are collected by the tester and sent immediately to the office.

Rating.

As far as possible the opinion of pupil and examiner are eliminated for an attempt is made to make the questions of such a nature as admit of only one answer. The pupil's rating is, then, in most cases, 0 or 100. This makes both for speed in rating papers and for accuracy and uniformity in judging results. The charts now in the office cover four years of work and more than a half million papers and it is obvious that speed in handling papers is desirable.

Records.

Accurate records are kept in the office and a book is provided for this purpose. Below is given a section from a sheet in this book:

In all ratings A signifies 90 to 100; B, 80 to 90; C, 70 to 80; X, failure. Duplicates of these sheets are made in blue print and sent to each of the sixteen principals in the city. The principal is then able to tell at a glance how each teacher in her school stands with every other

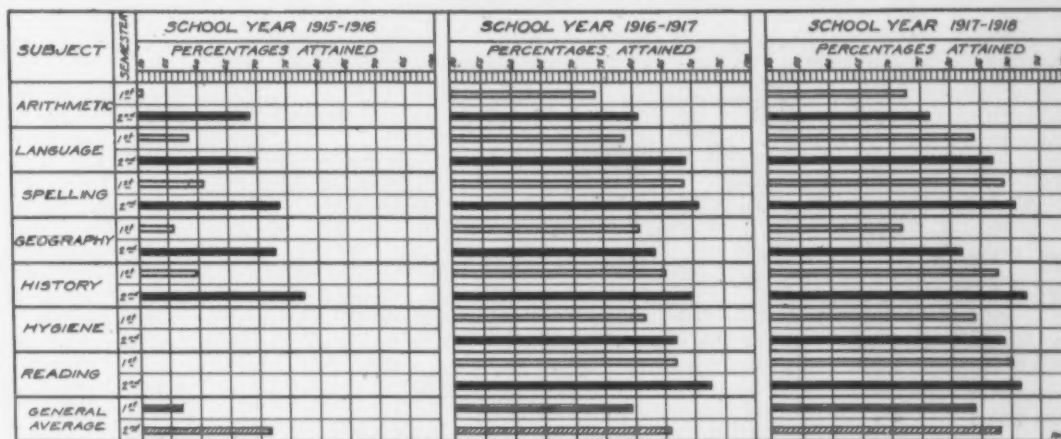


Chart 2. Percentages Attained in All Schools by All Grades, Sept. 1915-June, 1918

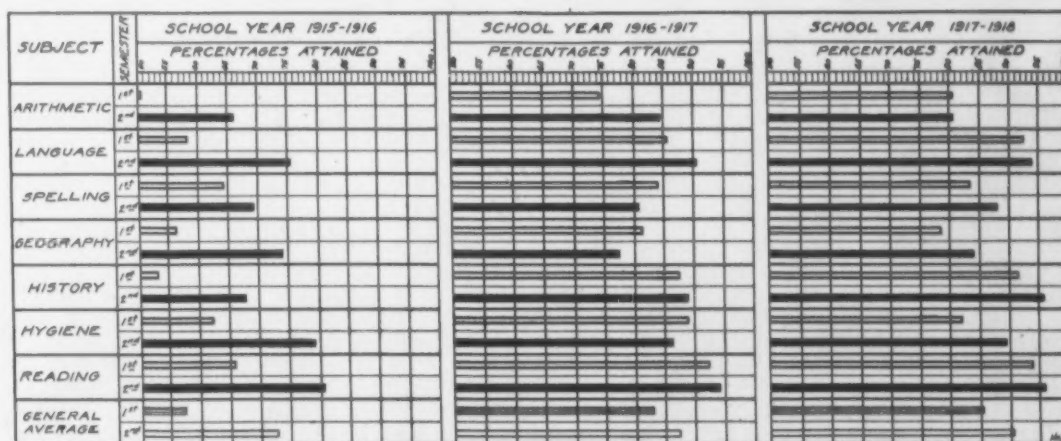


Chart 3. Most Consistent School Average. The Garfield School, Sept. 1915 to June 1918

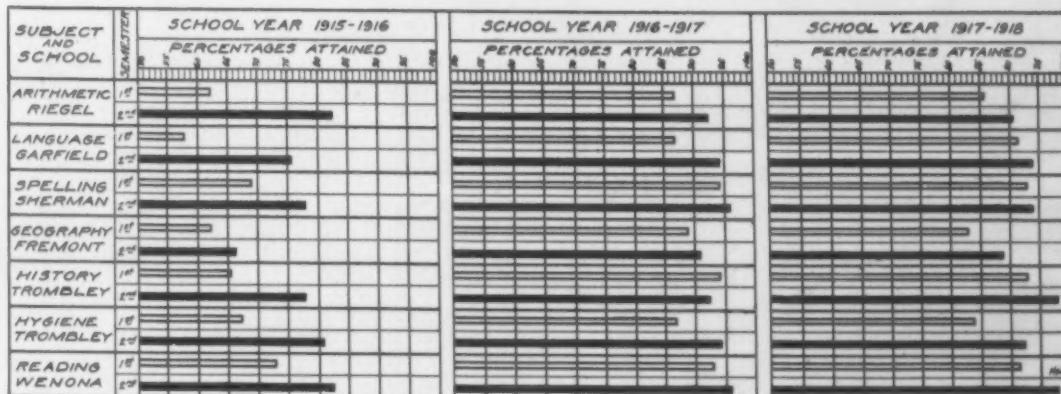
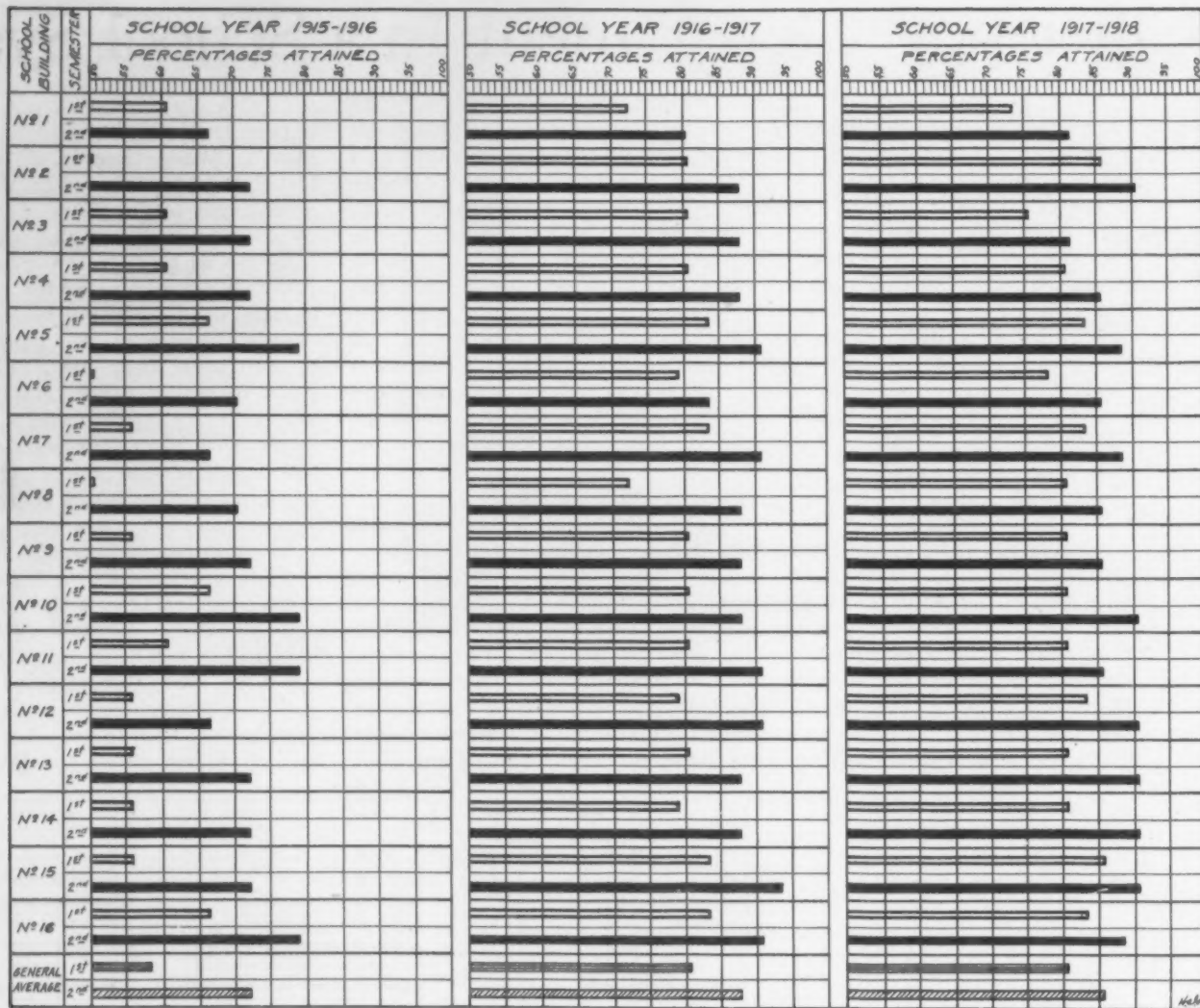


Chart 4. Attainable Standards by Subjects and Schools



Averages of All Schools, All Grades and All Subjects from September 1915 to June 1918

teacher in the system, how she stands with respect to the average in a given subject and how her building, as a whole, stands with other buildings in the city.

It is the law of averages that rules here. And how well it applies is shown by the following observations: (1) Schools and classes standing high on the so-called standard tests stand high in the Bay City test. (2) After visiting the several schools in the city one will, without knowledge of the standings made, classify schools and teachers on a basis almost identical with that made by the efficiency department. (3) Finally the principals and supervisors, themselves working independently of the department, before any ratings from the office had been returned, classified their teachers almost exactly as they were later classified by the figures in the office.

Charts.

To visualize the results of the testing, graphic charts have been made up. One chart (I) covers the work of each building from September, 1915, to June, 1918; another, (II) shows the averages made each semester in each subject by all schools since September, 1915; other charts cover the work of individual schools in all subjects, (See Chart III). Chart III, for example, shows the school making the most consistent record since 1915, while chart IV (which see)

shows the highest average made by any school in a given subject and, as its caption explains, sets an attainable standard for each school.

There may be seen on the walls of the room occupied by the department in charge of this

work, a visualized history of the work done since the department was organized. It is not necessary to discuss the results of the testing as the accompanying charts indicate what has been accomplished.

Minimum Wage Law for Teachers in Iowa

Supt. S. W. Johnson, Brookings, S. D.

Recent school legislation in Iowa, in many respects, is destined to have a far reaching influence in the educational system from the elementary school to and including the colleges and universities. Few states have enacted legislation that is more fundamental to the proper recognition of education for all classes and for the men and women who are to conduct the educational interests. During the school year of 1918-'19 it was almost impossible to find teachers of any desirable preparation or experience, not only in Iowa but in practically all of the states in the Union.

Suddenly laymen and educational leaders realized that the haphazard policy, which had been pursued since America was in the pioneer stage, was destined to bring the calamity suddenly, which ultimately would be felt. School boards had been allowed, in too many instances, to determine the educational qualification, the experience, and other fitness together with the

compensation of teachers, with little supervision from the state or nation. This ultra democratic way of administering the educational interests could accomplish, at most, but a small beginning toward establishing a great school system on the most efficient basis.

Teachers had been urged to be loyal, secure higher education, and put great efficiency and love in the service. Even the worthy motive of patriotism held many teachers in spite of beggarly wages. But when everybody was receiving a living wage and something for a rainy day, teachers finally left the schoolroom for various other activities. With a great World War on, many national questions confronted the statesmen from the industrial and commercial sources. Education was left quite to its own care and concern. It became necessary to make some drastic changes that would prevent a complete break-down in the public education.

With these serious conditions confronting the schools in Iowa the legislature met the problem with heroism, open-mindedness and far-sighted courage. There was a willingness and a desire from all branches of the educational forces to seek some desirable solution thru legislation. Committees worked together without any friction, each carrying on separate lines of work but all directed from the central organization of the State Teachers' Association. Various members of the legislative committee of the

(Continued on Page 101)

School	FIVE B								FIVE A							
	A	L	S	G	H	Hy	R	Av	A	L	S	G	H	Hy	R	Av
Woodside	B	X	B	A	B	B	B	B	A	B	B	C	B	A	A	B
Sherman	B	A	X	B	B	B	A	B	C	B	C	B	A	A	A	B
Dolsen	X	B	C	B	B	B	A	B	C	B	C	C	B	B	B	B
Farragut	B	X	B	B	B	B	A	B	B	B	C	C	C	B	B	B
Washington	X	B	A	A	A	A	A	A	X	B	C	C	B	B	B	B
Etc., Etc.																
Average	C	B	B	B	B	B	A	B	B	B	C	C	B	B	B	B



The Administrator and The Teacher

A Philosophy of Loyalty

Orwin Bradford Griffin, A. M.



Who Is An Administrator?

Shall we look in the Standard dictionary or in Harper's Latin Lexicon to find out who is an administrator? There is a tendency on the part of professors of education to divide the field for convenience' sake into "administration" and "supervision." The superintendent of schools, the business manager of a city system, the state superintendent of public instruction, the national commissioner of education are "administrators." All the principals, headmasters, and special teachers are merely "supervisors," beings of a lower order. If this classification be true, our article is badly named.

The truth of the matter is that a complete reversal of terms would be more exact than the present arrangement. The Standard inevitably refers us to Harper's. There we learn that an "administrator" is literally "he who is at one's hand to aid or assist one, to teach him any thing." The anomaly of calling any one of the officials mentioned first immediately above an "administrator" is at once evident. The men who sit in an office at the other end of a town from the various schools are decidedly not near enough at hand "to reach" the principal or teacher "anything" suddenly needed. Even when the superintendent has his office in the high school building, as sometimes happens, frequently he has not the special training that would make him of immediate assistance to principal and teachers.

The "administrator" is "the manager, conductor of a matter." An example given of the use of the word is *Imperator est administrator belli gerendi*, "An imperator is an administrator of war to be waged." Changing this example slightly, we have in a nutshell the true task of the school administrator: *Magister est administrator discipulorum docendorum*, "The master of a school is an administrator of little learners to be taught." This means that the principal, the headmaster, the special teacher—those officials who have previously rather inaccurately been relegated to the class of "supervisors"—are the true administrators in school affairs. These people are the ones who are near at hand to reach anything to the classroom teacher to help him in teaching little learners, even to assist the learners themselves directly. Ultimately, indeed, in the only real business of education, that of *educating pupils*, the classroom teacher is the administrator par excellence.

The state school official, far removed in his glossy office with his retinue of agents at the capitol, is hopelessly ruled out of the class of genuine school administrators. He may be a useful official, but he can never be a school administrator. He is not near enough to lend a hand in teaching pupils, and sometimes we feel that he might be rather helpless at this administrator's job. This is a time when the teaching profession is rightly under hot fire; "competent authorities" estimate that "more than one-half of the teachers of the United States are immature; . . . their general education is inadequate; their professional equipment is de-

plorably meager." One has little hesitancy in predicting that when the pitiless searchlight is turned upon state superintendents, the report will read somewhat as follows: "Out of approximately 48 state commissioners, competent authorities find, as to education and professional preparation at the time when they assumed office"—the results will be highly edifying, one is certain, to the investigators, if not to the investigated. The state officials by their very placing can have only a superficial knowledge of the actual, practical problems of school administration, and the longer they hold office the more superficial becomes their insight. The position of the national commissioner at present need only be referred to. He is a keen and capable man, but he is a supervisor of education, not an administrator.

A deal of dust has been stirred up, but it has not been all a mere word-quibble. The high school principal particularly thought of is more of an administrator than is a superintendent of schools or any one of the "higher" authorities. Those officers ordinarily named "the supervisors" are, indeed, supervisors, but they are the only administrators in the true meaning of the phrase. The men often called "administrators" are such only in a very small and figurative sense; they are more truly supervisors. And the chief business of the administrator is to be always near enough to lend a helping hand to the classroom teacher or directly to the pupils. This implies for one thing a close and loyal relationship between principal and teacher.

The Administrator, Teacher, and Office Routine.

The manager-in-chief of this matter of teaching pupils has certain office records and routine to attend to as incidental to his prime concern. The headmaster and the teacher have an important contact here. The former should strive unrelentingly to simplify records, to get "red tape" down to a minimum consistent with the successful running of the large enterprise. The teacher on his part should loyally assume that the data asked for are absolutely necessary and reduced to lowest terms. His reply to the principal's request should be characterized by four essentials, promptness, completeness, neatness, accuracy. The more quickly such matters are attended to, the better for all concerned. Careful attention to the demands of office routine by all parties interested is one of those many, for the most part, intangible factors which cause a happy and contented spirit to pervade all members of a school system. Loyalty and happiness are catching and can work wonders in the serious business of teaching school.

Teachers' Meetings.

For harmonizing the work of a large school and reanimating the spirit of its members there is no factor more potent than periodical gatherings of the instructors. The principal who bears this constantly in mind does well. The frequency, length, and general character of the meetings are matters calling for careful determination.

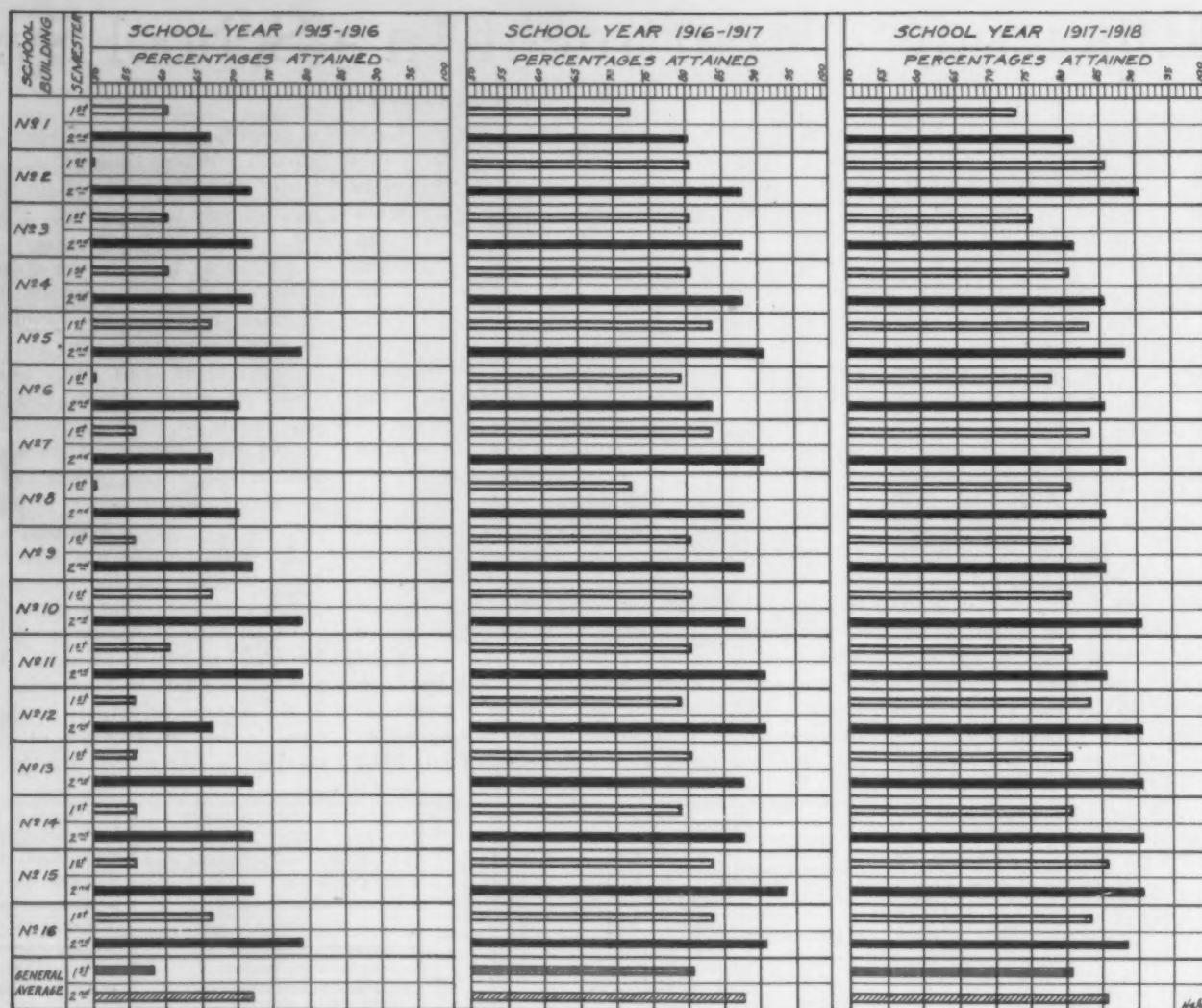
Regular meetings of all the teachers of the

school where 25 to 150 are employed should come probably not oftener than once in four weeks. Such stated assemblies had best be of one hour's duration only. The administrator, remembering the importance of the situation, must never fail to make the most painstaking preparation upon these occasions. Personal appearance and frame of mind even must be attentively looked to. The teachers' meeting is the principal's chief opportunity to place before his colleagues practical working ideals, and the reputation of his school may stand or fall upon the use that he makes of this opportunity.

Regularly appointed meetings are being spoken of. It is thought best that they should come at least once a month, for that is about long enough for we classroom teachers to pursue our own sweet ways without coming into contact with the work of other departments and the general workings of the whole school. There are times, I suppose, when even the best of us get lost by the wayside and so it is often with a sense of relief that we find ourselves again in a general meeting of all the teachers, even tho we wear a bored expression on our faces. Department meetings help, of course, but the general meeting is needed that we may see the problem in the large. It becomes the administrator's duty then to call these meetings and as many more as shall be required in special emergencies or at particular times during the year, such as at the examination and commencement periods.

It was indicated above that one hour is the ideal length for the teachers' gatherings. Of course the administrator must use his judgment. Less than an hour, in a large school, would be too short. Very much more than an hour is generally found to be too long. The high school principal whom I am thinking of comes to meetings thoroly prepared, formulates plans rapidly while on his feet, and leaves time for his teachers to express opinions within the hour. Whenever a session runs longer than this, the teachers soon get weary and feel that the time is being wasted. The administrator has to keep this in mind if he is to accomplish the most that is possible.

Common courtesy and loyalty dictate that the teachers on their part shall do all that they can to make the meetings successful. As the instructors have every right to expect the leader to commence proceedings on the dot, so he has every right to expect members of his staff to be punctual. Not infrequently it is tardiness of individual teachers which may cause meetings to be protracted. Not only should the teachers be punctual; they owe it to themselves to be closely attentive to all that is transacted in the meeting. We penalize a pupil for whispering during a recitation; we tell him it is a discourtesy. It is the same thing when we engage other teachers in a private conversation during a general meeting. For a third item, we should be ready at teachers' meetings with well-thought-out plans and opinions. These things we owe the administrator and the school.



Averages of All Schools, All Grades and All Subjects from September 1915 to June 1918

teacher in the system, how she stands with respect to the average in a given subject and how her building, as a whole, stands with other buildings in the city.

It is the law of averages that rules here. And how well it applies is shown by the following observations: (1) Schools and classes standing high on the so-called standard tests stand high in the Bay City test. (2) After visiting the several schools in the city one will, without knowledge of the standings made, classify schools and teachers on a basis almost identical with that made by the efficiency department. (3) Finally the principals and supervisors, themselves working independently of the department, before any ratings from the office had been returned, classified their teachers almost exactly as they were later classified by the figures in the office.

Charts.

To visualize the results of the testing, graphic charts have been made up. One chart (I) covers the work of each building from September, 1915, to June, 1918; another, (II) shows the averages made each semester in each subject by all schools since September, 1915; other charts cover the work of individual schools in all subjects, (See Chart III). Chart III, for example, shows the school making the most consistent record since 1915, while chart IV (which see)

shows the highest average made by any school in a given subject and, as its caption explains, sets an attainable standard for each school.

There may be seen on the walls of the room occupied by the department in charge of this

work, a visualized history of the work done since the department was organized. It is not necessary to discuss the results of the testing as the accompanying charts indicate what has been accomplished.

Minimum Wage Law for Teachers in Iowa

Supt. S. W. Johnson, Brookings, S. D.

Recent school legislation in Iowa, in many respects, is destined to have a far reaching influence in the educational system from the elementary school to and including the colleges and universities. Few states have enacted legislation that is more fundamental to the proper recognition of education for all classes and for the men and women who are to conduct the educational interests. During the school year of 1918-'19 it was almost impossible to find teachers of any desirable preparation or experience, not only in Iowa but in practically all of the states in the Union.

Suddenly laymen and educational leaders realized that the haphazard policy, which had been pursued since America was in the pioneer stage, was destined to bring the calamity suddenly, which ultimately would be felt. School boards had been allowed, in too many instances, to determine the educational qualification, the experience, and other fitness together with the

compensation of teachers, with little supervision from the state or nation. This ultra democratic way of administering the educational interests could accomplish, at most, but a small beginning toward establishing a great school system on the most efficient basis.

Teachers had been urged to be loyal, secure higher education, and put great efficiency and love in the service. Even the worthy motive of patriotism held many teachers in spite of beggarly wages. But when everybody was receiving a living wage and something for a rainy day, teachers finally left the schoolroom for various other activities. With a great World War on, many national questions confronted the statesmen from the industrial and commercial sources. Education was left quite to its own care and concern. It became necessary to make some drastic changes that would prevent a complete break-down in the public education.

With these serious conditions confronting the schools in Iowa the legislature met the problem with heroism, open-mindedness and far-sighted courage. There was a willingness and a desire from all branches of the educational forces to seek some desirable solution thru legislation. Committees worked together without any friction, each carrying on separate lines of work but all directed from the central organization of the State Teachers' Association. Various members of the legislative committee of the

School	FIVE B								FIVE A							
	A	L	S	G	H	Hy	R	Av	A	L	S	G	H	Hy	R	Av
Woodside	B	X	B	A	B	B	B	B	A	B	B	C	B	B	A	B
Sherman	B	X	X	B	B	B	A	B	C	B	C	B	A	A	A	B
Dolsen	X	B	C	B	B	B	A	B	B	A	C	C	B	B	B	B
Farragut	B	X	B	B	B	B	A	B	B	B	C	C	C	B	B	B
Washington	X	B	A	A	A	A	A	A	X	B	C	C	B	B	B	B
Etc., Etc.																
Average	C	B	B	B	B	B	A	B	B	B	C	C	B	B	B	B

(Continued on Page 101)



The Administrator and The Teacher

A Philosophy of Loyalty

Orwin Bradford Griffin, A. M.



Who Is An Administrator?

Shall we look in the Standard dictionary or in Harper's Latin Lexicon to find out who is an administrator? There is a tendency on the part of professors of education to divide the field for convenience' sake into "administration" and "supervision." The superintendent of schools, the business manager of a city system, the state superintendent of public instruction, the national commissioner of education are "administrators." All the principals, headmasters, and special teachers are merely "supervisors," beings of a lower order. If this classification be true, our article is badly named.

The truth of the matter is that a complete reversal of terms would be more exact than the present arrangement. The Standard inevitably refers us to Harper's. There we learn that an "administrator" is literally "he who is at one's hand to aid or assist one, to teach him any thing." The anomaly of calling any one of the officials mentioned first immediately above an "administrator" is at once evident. The men who sit in an office at the other end of a town from the various schools are decidedly not near enough at hand "to reach" the principal or teacher "anything" suddenly needed. Even when the superintendent has his office in the high school building, as sometimes happens, frequently he has not the special training that would make him of immediate assistance to principal and teachers.

The "administrator" is "the manager, conductor of a matter." An example given of the use of the word is *Imperator est administrator belli gerendi*, "An imperator is an administrator of war to be waged." Changing this example slightly, we have in a nutshell the true task of the school administrator: *Magister est administrator discipulorum docendorum*, "The master of a school is an administrator of little learners to be taught." This means that the principal, the headmaster, the special teacher—those officials who have previously rather inaccurately been relegated to the class of "supervisors"—are the true administrators in school affairs. These people are the ones who are near at hand to reach anything to the classroom teacher to help him in teaching little learners, even to assist the learners themselves directly. Ultimately, indeed, in the only real business of education, that of *educating pupils*, the classroom teacher is the administrator par excellence.

The state school official, far removed in his glossy office with his retinue of agents at the capitol, is hopelessly ruled out of the class of genuine school administrators. He may be a useful official, but he can never be a school administrator. He is not near enough to lend a hand in teaching pupils, and sometimes we feel that he might be rather helpless at this administrator's job. This is a time when the teaching profession is rightly under hot fire; "competent authorities" estimate that "more than one-half of the teachers of the United States are immature; . . . their general education is inadequate; their professional equipment is de-

plorably meager." One has little hesitancy in predicting that when the pitiless searchlight is turned upon state superintendents, the report will read somewhat as follows: "Out of approximately 48 state commissioners, competent authorities find, as to education and professional preparation at the time when they assumed office"—the results will be highly edifying, one is certain, to the investigators, if not to the investigated. The state officials by their very placing can have only a superficial knowledge of the actual, practical problems of school administration, and the longer they hold office the more superficial becomes their insight. The position of the national commissioner at present need only be referred to. He is a keen and capable man, but he is a supervisor of education, not an administrator.

A deal of dust has been stirred up, but it has not been all a mere word-quibble. The high school principal particularly thought of is more of an administrator than is a superintendent of schools or any one of the "higher" authorities. Those officers ordinarily named "the supervisors" are, indeed, supervisors, but they are the only administrators in the true meaning of the phrase. The men often called "administrators" are such only in a very small and figurative sense; they are more truly supervisors. And the chief business of the administrator is to be always near enough to lend a helping hand to the classroom teacher or directly to the pupils. This implies for one thing a close and loyal relationship between principal and teacher.

The Administrator, Teacher, and Office Routine.

The manager-in-chief of this matter of teaching pupils has certain office records and routine to attend to as incidental to his prime concern. The headmaster and the teacher have an important contact here. The former should strive unrelentingly to simplify records, to get "red tape" down to a minimum consistent with the successful running of the large enterprise. The teacher on his part should loyally assume that the data asked for are absolutely necessary and reduced to lowest terms. His reply to the principal's request should be characterized by four essentials, promptness, completeness, neatness, accuracy. The more quickly such matters are attended to, the better for all concerned. Careful attention to the demands of office routine by all parties interested is one of those many, for the most part, intangible factors which cause a happy and contented spirit to pervade all members of a school system. Loyalty and happiness are catching and can work wonders in the serious business of teaching school.

Teachers' Meetings.

For harmonizing the work of a large school and reanimating the spirit of its members there is no factor more potent than periodical gatherings of the instructors. The principal who bears this constantly in mind does well. The frequency, length, and general character of the meetings are matters calling for careful determination.

Regular meetings of all the teachers of the

school where 25 to 150 are employed should come probably not oftener than once in four weeks. Such stated assemblies had best be of one hour's duration only. The administrator, remembering the importance of the situation, must never fail to make the most painstaking preparation upon these occasions. Personal appearance and frame of mind even must be attentively looked to. The teachers' meeting is the principal's chief opportunity to place before his colleagues practical working ideals, and the reputation of his school may stand or fall upon the use that he makes of this opportunity.

Regularly appointed meetings are being spoken of. It is thought best that they should come at least once a month, for that is about long enough for we classroom teachers to pursue our own sweet ways without coming into contact with the work of other departments and the general workings of the whole school. There are times, I suppose, when even the best of us get lost by the wayside and so it is often with a sense of relief that we find ourselves again in a general meeting of all the teachers, even though we wear a bored expression on our faces. Department meetings help, of course, but the general meeting is needed that we may see the problem in the large. It becomes the administrator's duty then to call these meetings and as many more as shall be required in special emergencies or at particular times during the year, such as at the examination and commencement periods.

It was indicated above that one hour is the ideal length for the teachers' gatherings. Of course the administrator must use his judgment. Less than an hour, in a large school, would be too short. Very much more than an hour is generally found to be too long. The high school principal whom I am thinking of comes to meetings thoroly prepared, formulates plans rapidly while on his feet, and leaves time for his teachers to express opinions within the hour. Whenever a session runs longer than this, the teachers soon get weary and feel that the time is being wasted. The administrator has to keep this in mind if he is to accomplish the most that is possible.

Common courtesy and loyalty dictate that the teachers on their part shall do all that they can to make the meetings successful. As the instructors have every right to expect the leader to commence proceedings on the dot, so he has every right to expect members of his staff to be punctual. Not infrequently it is tardiness of individual teachers which may cause meetings to be protracted. Not only should the teachers be punctual; they owe it to themselves to be closely attentive to all that is transacted in the meeting. We penalize a pupil for whispering during a recitation; we tell him it is a discourtesy. It is the same thing when we engage other teachers in a private conversation during a general meeting. For a third item, we should be ready at teachers' meetings with well-thought-out plans and opinions. These things we owe the administrator and the school.

Teachers' meetings in the large high school are much more formal affairs than they can be in the institution with but ten or twenty instructors. With frequent informal discussions the stated meetings in the smaller school may be easily reduced to three or four a year. The administrator of such a school also needs to give careful attention to his teachers' meetings. He is more often perhaps than the principal of the large school a man of mediocre caliber. In this case it is exceedingly difficult for the classroom teachers to make a success of their work. They must get what they can, but, especially, give the most that they can in the various gatherings to discuss school affairs. They must be very tactful, conceal personal feelings, and substitute loyalty to the school for loyalty to their chief. In the case of the efficient, ideal administrator, whom we have had in mind, loyalty to the institution and loyalty to the principal coincide. His plans and actions square with and advance the best traditions of the school.

Classroom Visits and Criticism.

One of the important relations between administrator and teacher is in the principal's visits to the class recitation and his criticism of the instructor's methods. In the large school the principal practically selects the members of his teaching force. He has a duty as well as a natural interest to observe his teachers in action. The necessities of his official position force him to spend much time in his headquarters, but from time to time he must also visit his teachers, especially those who have more recently come to the school.

One of the most successful instructors I have met, a very capable woman of many years' experience, once remarked, "I feel positively ill when he visits my classes." She had reference to one of the state school officials classified above as among the pseudo-administrators, a man, by the way, who has since been forced by reason of his extreme tactlessness from his prominent position in another state. Another member of the same state department first referred to visited my classes. My feeling was not one of nausea, but it was certainly one of annoyance. The official in question said little or nothing to me, but thruout his stay in my room continued to write industriously in his little red-covered leather book. And from that day to this I have not learned whether my busy visitor was figuring out his expense account against the state or making out his budget for the following year or writing the first draft of his annual report or merely taking notes on the recitation which I was conducting. Certain it is, my teaching ability was not improved one whit by his visit. He had no criticism one way or the other to offer, at least in my presence.

These two examples, which, if space permitted, could be multiplied many fold, show that there is one factor in classroom visiting that the administrator cannot slight. We cannot too often remind ourselves and one another that the ultimate end and aim of all the motions that we go thru in this business of teaching school is to make the boys and girls under our tutelage beings better and better able to get on successfully with themselves and their fellow humans to the best interests of all concerned. The teacher, since he comes in closest contact with the pupils, is the most direct medium of their improvement. The administrator who visits classes must not forget that his chief reason for observing a recitation is that he may later offer helpful suggestions to the teacher, always looking to the good of the pupils. Let the principal, upon entering the room, assume that a teacher is a delicate, sensitive organism. Some are and some are not. Be that as it may, if he adopts the assumption, he will be more likely to pay the consideration due the teacher whose class he is

visiting. The attitude which he exhibits, the word that he utters, the moves that he makes—all will be carefully guarded. With these precautions only may he hope for any good to result from his visit.

The visitor in the first example given was positively harmful in his influence; the second visitor was practically innocuous. In neither instance was a report of the findings made to the teacher. A classroom visit without a later conference between administrator and teacher is of little use. The criticism of the teacher's procedure is perhaps the most important feature of supervision. The principal is wasting his time to all intents and purposes if he does not make a point of calling in the teacher whom he has visited, offering helpful suggestions for possible improvement, and, especially, giving praise whenever he can do so. The teachers will come to enjoy the approach of such an administrator. He will rarely or never upset their schedule and they will not be unduly agitated by his presence.

The teacher, as well as the administrator, has his part to play in this matter of supervision. He must recognize the fact that at least a small amount of classroom observation work by the principal is a necessity. He should always receive his superior officer in a spirit of friendly cooperation. The teacher should not have the feeling that he is on the defensive, that hostile forces are assaulting his stronghold. If the teacher has believed that he has been working under unusual difficulties inherent in his schedule or particular classes, he can consider the principal's visit as his opportunity to bring out the difficulties which have bothered him. Then the conference following the visit will serve as the clearing-house for an exchange of views and suggestions between teacher and administrator. Many a time a principal, having as a basis of comparison the work of other teachers whom he has observed, can show one instructor that one or more other colleagues are having similar troubles. Oftentimes a knowledge of this fact is a comfort and satisfaction to a teacher, for we all like to be in the same boat with the others.

Administrator, Teacher, and Discipline.

Do you know of anything that will give the teacher a sense of baffled helplessness quicker than failure on the part of his principal to back him up in a flagrant case of discipline? I do not. Life does not seem worth living, all one's efforts appear in vain, if in trying to enforce important rules of a school one has only meager support or no support at all from the headmaster. Under such circumstances rules become a farce and the attempts of teachers to maintain order, a huge joke. The cases of discipline discussed in this section are, of course, those affecting the general life of the school, as well as aggravated instances of classroom disorder which call for reference to the office.

Three administrators come to mind. And one of them, the headmaster of a school of five hundred pupils, when an issue between teacher and pupil comes to him for settlement, will waver, hedge, laugh, and tell the pupil that "it's all right, for I used to do worse than that when I was a boy!" A very good idea! Our boys and girls are young but once. Let them have a good time while they can. Let us not be too strict with them. Yes: I subscribe heartily to this program. But what of the great lesson of obedience to law and constituted authority, which the school must teach if it never teaches a lesson in mathematics or Latin or English even, the great lesson by means of which these boys and girls will be able so to shape their actions that the "good times" which they have while in high school may the more surely continue to be theirs thruout their later careers? The delinquent pupil goes forth in a jocular mood from the office of the headmaster in question and, collecting his

fellow schoolmates, he tells them about it all. The news spreads and "the laugh" is on the teacher who tried to do his duty in enforcing the law. From that time on that teacher's influence for good is either greatly weakened or entirely nullified. The cases multiply until most of the eighteen or twenty teachers become involved, and discipline and order in that school are in bad straits.

The second administrator is a man of much firmer fiber—he has to deal with five times as many pupils—yet the teacher cannot always be sure of his full support. He wishes to get along with the least possible friction with the pupils and as a means to this end is somewhat inclined to avoid meeting an issue. The teacher is given full authority to keep order, but he hesitates to act upon his authority at times, for he knows from past experience that many really serious offenses are sometimes treated lightly by this principal. In other words, the teacher is never quite certain that his action will be upheld at headquarters.

The greatest of these three is the principal of a large city high school. Here if a pupil flout the rules, the teacher has but to send the culprit to headquarters, the offense calling for such drastic treatment, and this administrator always stands squarely in back of the teacher. Whatever penalty the teacher has attached to the misdemeanor holds good. A right attitude toward teacher and rule generally follows from such handling of discipline, and the pupil is by no means the loser. Upheld by authority in this firm manner, the teacher tends to be extremely careful in discipline and penalties. By observing many examples of the working of the law of the institution as administered by teachers and principal, the pupils learn valuable lessons of how better to deal with one another. As a result, a spirit of respect for others characterizes all members of this school. This third type of administrator is the encouraging one to work under.

But the responsibility for good discipline in a school doesn't rest with the administrator alone. We have seen how a weak headmaster can create havoc. But a strong leader working with teachers who have no inclination to keep order will have a hard row to hoe. Both sides must be strong. Cooperation must be as nearly perfect as human affairs can be. It is the duty of all teachers to pull together steadily toward the same goal. In this way alone can any advance be made. One or two teachers singly trying to stem the tide in a school of 2500 pupils are worse than helpless. They may have the hearty backing of the principal, but they must have the cooperation also of every other teacher on the faculty.

Two incidents during a recent pupil "strike" in a large city high school illustrate the condemnable and the commendable attitudes on the part of the teachers. A small group of the boys and girls imagined "grievances." The principal treated with them better than they deserved in an effort to adjust the trouble. One day, in the absence of the principal—he was conferring with the state fuel administrator as how best to conserve coal for war purposes and yet keep the pupils warm—the dissatisfied element, without a shadow of justification for their action, flared forth in a "strike," which temporarily drew about four hundred pupils from the school. The work of the school went on as usual. But it was rumored that two or three of the one hundred and thirty-odd teachers had stated that *they did not blame the pupils!* Here was a time when silence would have been golden. There are occasions—many of them—when our sacred right of freedom of speech should be exercised extremely judiciously. Details cannot be entered into, but this may be said: "The pupils' defection came

during the period when America was fighting with all her powers against the principle that might makes right, and to have any teacher uphold these boys and girls in their attempt to employ force at such a time was the last straw. If I had had the power, the indiscreet teachers would have been instantly discharged, and I am a steadfast supporter of the rights of the teacher.

The second incident in contrast to the first was a most inspiring display of loyalty on the part of practically all the teachers. The "strikers" had returned and knew that at least there would be many demerits apiece which had accrued automatically during their two or three days' willful absence from recitation. But they were confident, for had they not paraded the downtown streets, entered the mayor's office, and secured from that weak-kneed politician a promise to intercede in their behalf to the end that they might return to school without receiving any punishment—for they had begun to feel themselves in the wrong? The mayor did finally request the board of education to allow the pupils to return scotfree. The principal himself had announced all the penalties, so the whole system of discipline in the school was now at stake. Here was the occasion for all good teachers to come to the aid of their chief. And they came, practically unanimously, stating in a dignified but firmly worded petition to the board that to allow the delinquent pupils to go unpunished in this affair was considered by the signers most unwise. The matter was dropped. The demerits

stood. For six or eight weeks after, on afternoons, evenings, and Saturdays the "strikers" made up lost time. Most of the pupils, too, seemed to feel that they were receiving the justice which they merited.

The administrator had been vindicated by the action of his teachers. This is as it should be. In the matter of discipline both the principal and his teachers have important parts to perform. The head without the body is useless, as the body lacking the head is helpless.

Miscellaneous Duties of Teachers.

The teachers in all high schools have many more duties than can be fully described here. Two will be briefly stated.

Punctuality is a necessary attribute of the ideal teacher. This is a matter in which the example of the teacher goes a long way with the observant pupil. Hence it is doubly important that the instructor be always on time. Every administrator is justified in requesting his comrades to reach the school building at least fifteen minutes before the sessions begin. It might not be necessary to call attention to the fact that it is inconsistent in the teacher to demand that his pupils be always on time when he himself is afflicted with chronic lateness.

It is the part of loyalty for a teacher to have a systematic arrangement of his room equipment, his desk, and his daily assignments, so that in case of sudden illness or other unavoidable absence on short notice the work will not

suffer, since it can be quickly and easily taken up by a newcomer. The teacher should communicate with the administrator at the earliest possible moment when it seems likely that absence will be needful. In case of a serious accident to the instructor his systematic arrangement of his school affairs must be relied upon by the substitute in carrying on smoothly the work of his courses. Whenever a teacher, too ill to be at his post, may yet find it possible to offer suggestions to the substitute—frequently an inexperienced worker—he should not hesitate to do so.

Conclusion.

The real school administrator is the man or woman who stands closest to the classroom teacher and the pupil, ready always to lend a helping hand. The principal of a large city high school more truly fills this bill than the superintendent of schools in the same city. But it isn't with the administrator alone that the burdens rests of inspiring boys and girls to better lives of service. The teacher has a lion's share of the responsibility. Both parties are necessary to the complete success of the great enterprise of education. And the key-note which marks the countless relations between administrator and teacher should ever be the finest spirit of loyalty possible, loyalty to one another, but, especially, loyalty to the boys and girls for whom the institution stands, who are, indeed, in a very true sense themselves the institution.

Janitorial Service in School Buildings

Variations in Work and Difficulties in Maintaining Economical Conditions

The vastly increased costs of the schools have caused school boards and their executive officers to scrutinize every element of operation and maintenance with more than ordinary care. The rising wages of janitors, while they have been less prominently before the public than the salaries of teachers have given no small amount of concern to board members and have directed the attention of school board secretaries and superintendents of buildings more strongly than ever to the "janitorial problem". Briefly, this problem resolves itself into the question: How can adequate care and cleaning of the school plant be obtained at a minimum cost? And while it is realized by anyone who gives the matter a moment's thought that a solution of the problem can at best be partial, temporary, and relative still there are large opportunities for improvements which can be made and economies which can be effected by a study of the elements of the service from both the purely mechanical and the complex human standpoints.

At the Cleveland meeting of the National Association of School Accounting Officers a committee of prominent school board business managers presented a "progress report" on a study of janitorial problems which has been under progress for two years and which is being continued for the purpose of (a) working out a schedule defining and arranging the work of janitors, (b) evolving a rating card by which janitors can be promoted and demoted, (c) suggesting a method for fixing and increasing salaries, and (d) determining a generally applicable scheme for judging the relative efficiency and economy of janitorial work. The work of the committee, while it is far from complete, points out a number of elements which are valuable to every school board in studying its local situation and finding a remedy for many unsatisfactory conditions.

In a preliminary report made in 1918 and referred to only briefly in its recent report of progress the committee laid down four principles which it holds to be fundamental:

"a. That the janitorial service for any school building should be based upon the *man-hours* required and the *man-power* exerted.

"b. That the man-hours and the man-power must be determined by the size of the buildings and the *percentage of difficulty* in each building for each kind of work.

"c. That the determination of man-hours and man-power can then be readily converted into a working day of any given number of hours and the number of men or women required to perform the work determined.

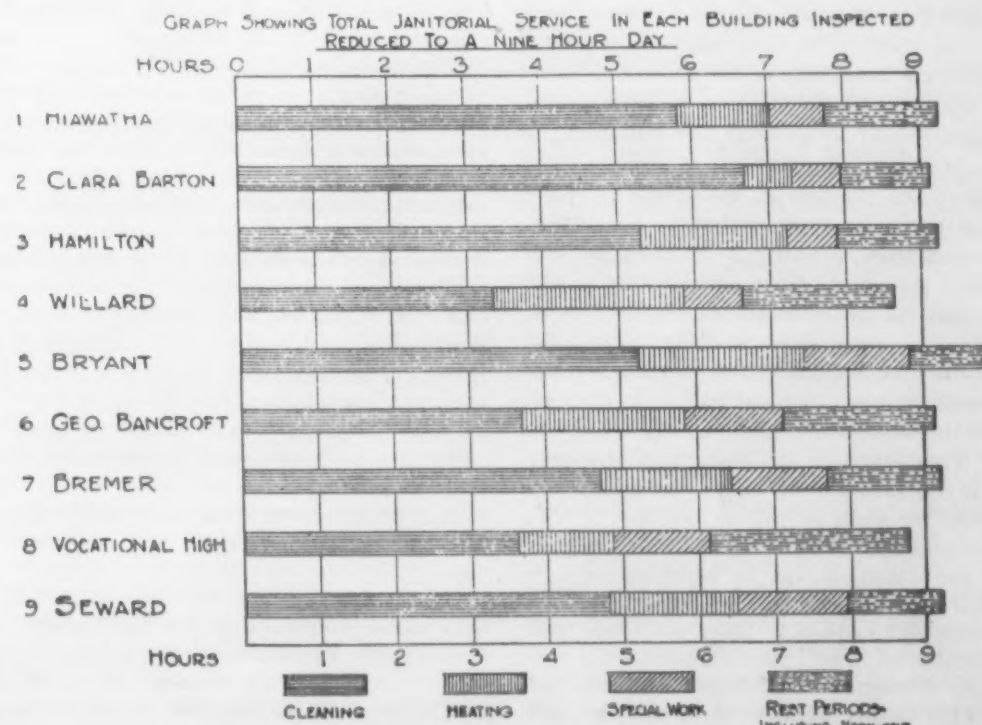
"d. That having determined upon the number of men and women required to properly perform the janitorial service in a school building, the compensation paid will be dependent upon

the scale of wages which prevails in each city or locality."

It can readily be seen from the foregoing that if a method to satisfactorily determine the kind, quality and quantity of work which constitutes the janitorial service in any given school building, regardless of its location and size, can be devised and by which this service can readily be converted into man-hours and man-power, the problem will be solved for every school in the United States.

The committee recommended that all janitorial service be divided into three natural classifications of work: cleaning, heating and special work.

As a means of determining whether it could



GRAPH 1. JANITORIAL SERVICE IN NINE SCHOOLS REDUCED TO TYPES OF WORK PERFORMED IN A NINE HOUR DAY.

School Board Journal

RESULTS OF INSPECTION OF NINE SCHOOLS IN MINNEAPOLIS.

		Seward 9 days	Voc. High 18 days	Bremer 12 days	Geo. Bancroft 11 days	Bryant 11 days	Willard 5 days	Hamilton 6 days	Clara Barton 12 days	Hiawatha 12 days
CLEANING										
A. 1.	Sweeping	7821	14464	8608	4793	4738	1513	2461	3360	2656
2.	Mopping or Scrubbing	1079	1651	1936	763	300	267	352	2330	1967
3.	Cleaning Entries	60	75	64	30	....	40	....	....	64
4.	Cleaning Woodwork	1784	1629	1135	22	675	....	432	678	1326
5.	Washing Blackboards .....	....	1150	15	....	71	15	....	13	....
6.	Brushing Walls & Ceilings .....	....	....	....	....	....	....	....	....	....
7.	Dusting	1892	4272	3503	1413	2777	543	1184	828	979
8.	Washing Windows	205	312	404	75	248	....	....	1141	26
9.	Dusting Radiators	20	210	114	85	110	20	....	....	....
10.	Cleaning Desks	124	308	243	....	89	....	535	191	320
11.	Sweeping Sidewalks	195	170	30	5	....	....	....	67	255
12.	Gathering Rubbish	714	1625	1060	483	351	112	142	208	66
13.	Cleaning Yard .....	....	45	87	....	....	....	....	....	38
14.	Cleaning Light Globes .....	....	....	6	19	....	....	....	....	55
15.	Cleaning Lav. Urinals & Toilets	1144	860	1701	996	435	235	495	289	360
16.	Disinfecting Rails, Knobs, etc.	23	865	60	....	....	15	....	....	....
17.	Cleaning Door Glass	200	....	495	172	517	125	39	409	202
18.	Cleaning Lab. & Gym. Equipmt. ....	....	....	47	....	....	....	40	....	23
19.	Cleaning Drinking Fountains	74	307	271	100	146	30	43	142	74
		15335	27943	19779	8956	10457	2915	5723	9656	8411
HEATING										
B. 1.	Handling Coal	772	1393	964	959	553	79	247	112	....
2.	Starting Fires	428	200	65	270	230	40	50	34	86
3.	Firing	1118	2979	1608	1722	1311	659	382	266	460
4.	Cleaning Fires	267	1180	325	204	242	50	105	77	111
5.	Removing Ashes	338	890	722	628	507	117	300	48	104
6.	Blowing Flues	55	282	239	85	99	20	53	33	220
7.	Cleaning Flues .....	....	....	122	....	60	....	30	....	....
8.	Washing Boiler .....	....	....	....	....	125	105	....	....	....
9.	Cleaning Mech. Equipment .....	....	30	128	....	....	....	85	67	38
10.	Misc. Mech. Operation	396	338	573	111	111	95	92	42	288
11.	Operating Vent. System	170	....	162	133	82	40	45	70	....
12.	Room Inspection, Regulation	1268	1317	1152	363	755	92	504	169	195
13.	Time Lost in Boiler Room	513	772	894	649	294	870	197	191	181
14.	Cleaning Combustion Chbr. ....	....	....	....	....	....	....	....	....	44
15.	Cleaning Breeching & Stacks .....	....	....	....	....	....	....	....	....	....
		5325	9381	6954	5124	4369	2167	2090	1109	1727
SPECIAL WORK										
C. 1.	Lawn Work .....	....	....	....	....	....	....	....	....	....
2.	Shovel Snow & Ice	763	415	180	926	1094	190	170	....	....
3.	Lock Doors & Gate	332	1089	509	196	60	15	15	83	10
4.	Raising Flag	18	120	10	85	48	5	....	30	....
5.	Set & Wind Clocks	387	424	655	307	238	75	30	125	86
6.	Supplies for Toilets	37	945	115	89	60	20	56	24	6
7.	Moving Chairs, Aud. & Gym	31	702	216	9	....	25	....	....	6
8.	Ringling Bells & Gongs	185	26	15	....	127	153	22	127	....
9.	Supervisory Work	170	1135	758	307	45	....	95	20	....
10.	Miscellaneous Work	1677	3609	1490	1186	630	140	176	70	853
11.	Minor Repairs	583	1187	1097	....	289	15	262	430	42
12.	Removing Snow from Roofs	236	230	130	16	60	....	....	....	....
		4419	9882	5175	3121	2651	638	826	909	1003
D. 1.	Time Lost & Rest Periods	4266	20769	6418	4914	1993	2055	1334	1476	2174
Total Time in Building		29345	67975	38326	22115	19470	7775	9973	13150	13315
Absent from Bldg. during work hours (without Permission) .....		....	1919	....	220	....	490	....	....	....

be proved that the work under these three heads can be standardized a large number of school-houses in the home city of the chairman of the committee was checked. Two to four inspectors were placed in each of the buildings for periods ranging from five days to eighteen days to observe the janitors at work and to record the time taken for every activity. The inspectors moved from building to building as they completed the observations and became so proficient that reliable accuracy of results was obtained. The accompanying table shows the reports on nine schools which are typical and which may be taken as a guide:

From the data in this table, Graph No. 1 was made. This graph in the opinion of the committee is not valuable for what it actually shows but rather for what it fails to indicate. There is nothing in it to show how proficient the janitor in any building was in sweeping or how much surface he swept in a given time. The same statement applies to other activities with the exception of "rest" which undoubtedly presented no element of "difficulty." To add the matter of difficulty as affected by the age and physical condition of each of the buildings and to consider the actual amount of sweeping, dust-

ing, snow shoveling, etc., would affect the graph considerably.

The committee writes: "The number of janitorial employees in each of the buildings shown in the graph was based upon floor space, glass area, various departmental activities, special rooms, mechanical equipment, annexes, lawns, sidewalks, playgrounds, swimming pools, night school, summer school, etc., etc. In all 187 items were used as a basis upon which the amount of janitorial work was estimated for each building and from which the number of persons was determined for each building. The man-power was, therefore, as nearly equitable for each building as it was possible to determine at this time.

"Each employee was required to be in his building nine hours, with an allowance of one hour for lunch.

"The graph shows a composite nine hour day averaged from all the employees in each building.

"With one exception, the Bryant School, the work was accomplished within eight hours. The work at the Vocational High School required only six hours and ten minutes. At the Willard school, the work was finished in six hours and forty minutes. The janitors in the Bryant School worked eight hours and fifty minutes

and spent nine hours and fifty minutes in the building in order to eat their lunch.

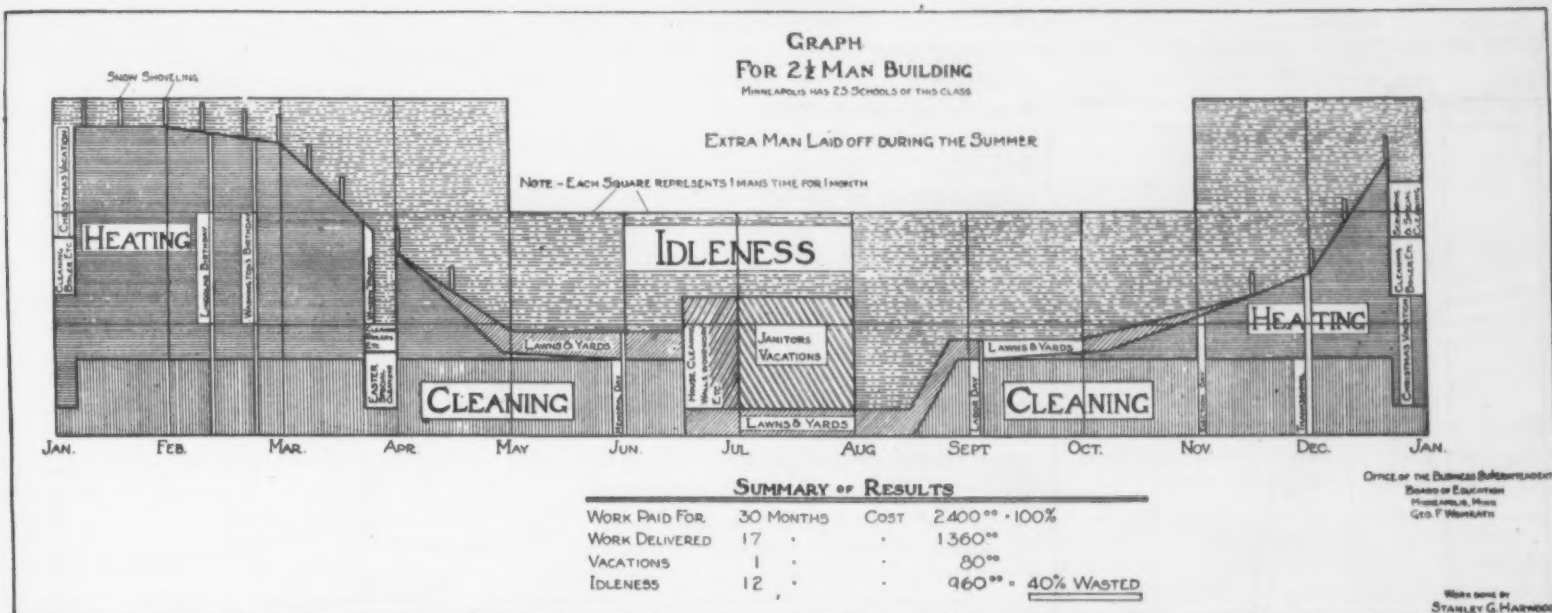
"At the Vocational High School the janitors averaged two hours and forty minutes idleness and still left the building twelve minutes ahead of time. At the Willard, the men averaged two hours' idleness and quit 25 minutes ahead of time.

"Bearing in mind that the employees in each of the buildings above charted probably work just a little more energetically than they ordinarily do when no inspectors are present, it is interesting to note from the graph the amount of idle time.

"The next step in our investigations will be to establish a proper standard value which may be given to each of the items covered by the inspection sheets and to which may then be applied the "percentage of difficulty determined for each building. With this established, a score card can be made up which will be a most important step toward the solution of the problem which has been given us to work out."

Idleness in Janitorial Service.

Graph No. 2 is a composite of a study made by Mr. Stanley G. Harwood of the relative amount of time spent at work and in enforced



GRAPH 2. RELATION OF VARIOUS TYPES OF WORK AND IDLENESS.

idleness in the two to three man school buildings of Minneapolis.

The report says of this graph:—

"This graph is for a two and one-half man building (three men in winter and two in summer) of which there are 25 out of 82 schools in the Minneapolis school system to which the graph applies. The graph clearly shows the seasonal activities and the glaring waste of 40 per cent of the time of the janitorial employees. The hardest work is shown as coming in December, January and February, after which time the work rapidly diminishes and almost disappears during a large part of the summer.

"One of the peculiar features in public school janitorial work is that the educational schedule is such that the janitors are not or should not be allowed to do certain work except after school hours. This creates periods of enforced idleness which not only waste time but have a very bad effect upon the morale of the men. The psychological effect of idleness is familiar to everyone.

"It therefore becomes one of the important duties of a secretary, or business superintendent, or school administrative head who is in charge of the janitorial service, to arrange the work and hours of the janitorial employees so that they will be present in the building at the time when they can be continuously at work and thus reduce the enforced idleness to a minimum.

"Now 40 per cent of the janitors' payroll of any school system—regardless of whether the system is one in which the board employs and controls all the employees or lets the work out under contract—is an item deserving of careful scrutiny.

"While it may be presumptuous to assume that a loss of 40 per cent of the janitor's payroll is applicable to most cities rather than being peculiar to the city in which was obtained the data from which the chart was made, it nevertheless will be interesting to apply the following table to your respective school janitor's payrolls:—

- 40% of a \$10,000 per month payroll is \$4,800 loss per year.
- 40% of a \$25,000 per month payroll is \$12,000 loss per year.
- 40% of a \$50,000 per month payroll is \$24,000 loss per year.
- 40% of a \$100,000 per month payroll is \$48,000 loss per year.
- 40% of a \$250,000 per month payroll is \$12,000 loss per year.
- 40% of a \$500,000 per month payroll is \$24,000 loss per year.

"Now suppose the loss is only one-half of the above figure. This waste for 20 years would be: \$48,000 in 20 years on a \$10,000 per month payroll.

\$120,000 in 20 years on a \$25,000 per month payroll.

\$240,000 in 20 years on a \$50,000 per month payroll.

\$480,000 in 20 years on a \$100,000 per month payroll.

\$1,200,000 in 20 years on a \$250,000 per month payroll.

\$2,400,000 in 20 years on a \$500,000 per month payroll.

"These figures are certainly well worth studying and the situation they uncover in at least one city should start some serious thinking on

this phase of the janitorial service, i. e., that of idle time, enforced or otherwise."

Graph No. 2 makes very clear that the janitorial problem as it relates to the relative length of time which janitors put into actual work and into more or less enforced idleness deserves study from the "seasonal" or yearly standpoint and from the "periodic" or daily standpoint.

The committee is studying these phases of the problem but it seems desirable for every community to make its own study and so to arrange its schedule of daily and seasonal work to eliminate every possible wasteful element. It should be added that much of the enforced idleness is not entirely lost in that the janitor's presence in the building is similar to that of a watchman or of a stationary engineer who prevents trouble by his watchful waiting.

WHAT DO YOUR GRADES MEAN?

Richard E. Tope, Grand Junction, Colo.

The theoretical distribution of the qualities which school marks are supposed to indicate is a matter which should concern teachers more than it has in the past.

The methods employed, or the lack of some good method in school grading is of vital importance to the school administration. The grading system in use is a mirror that reflects the general character of the whole work of the school. If it be loose it indicates a general weakness along the lines of educational psychology that is undermining the success of the work and the results that should be obtained in a good working school. If it be scientific it indicates that some definite constructive methods are being employed to form a coherence in the whole school plan inasmuch that the teaching staff will have a definite idea of the ends and aims of the work which they are trying to do and that they will also have a clear idea of the methods for securing these worth-while aims in a direct business like manner.

There is such a close correlation between the proper distribution of grades and the school course particularly the courses in the different subjects that much study and investigation in every school system must be undertaken if real working results are to be secured.

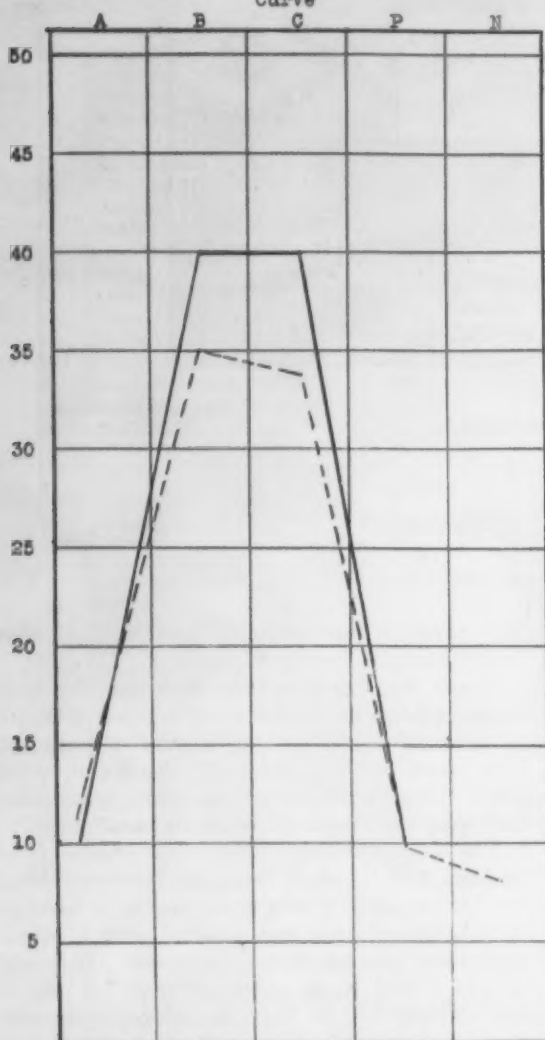
The best possible division of the marking scale for any small number of groups is the five member division. Occasionally it is necessary to make this a six member division because if the fifth division denotes failure it is sometimes necessary to condition some of these students for reasons that are satisfactory. This in a

sense makes the classification a six division scheme while in reality it is still a five division arrangement. The five division plan is based on the orientation of all students around a central group whose accomplishment is construed to be average or medium. The largest single homogeneous type of student is the average student. This applies also to people generally. This system of marking makes it possible to fix the median for any set of credits and then offers the facility for differentiating the groups above and below the average.

The tendency in school marking is to grade too high. This is caused by a number of things the most important of which are too liberal marking above the equitable deserts of the students, teachers catering to the whims of pupils and parents, too easy work, placing too much emphasis on mere performance of perfunctory school tasks rather than on real accomplishment, dishonest methods employed by the students in obtaining grades, and extraneous aids allowed the students for raising their grades.

The writer's study of this subject has produced real tangible results in connection with his school work. The teachers have enjoyed the study and investigation that has been necessary to arrive at any conclusions and they all agree that it has had a marked influence on the affairs of the high school administration. We give out our grade cards at the end of six-week periods and as soon as the grades are in for any period a set of graphs is prepared showing the curve of grades issued by each instructor. These curves are compared with each other

Graph No. 1
Curve of Instructor's Grades With Normal Curve



and with the normal curve of ability. Then a curve is made for the entire school and each instructor's curve is compared with it. We also compare it with normal curve.

Our grade marks are A, B, C, P, and N. In order to be specific I give below a curve of one of our instructors for the semester which has just closed. The curve explains itself. Out of the list of grades issued by this particular instructor 11 per cent were A's, 35 per cent were

B's, 34 per cent were C's, 10 per cent were P's, and 8 per cent were N's. The probability curve of ability is placed on the instructor's curve and it is plain to be seen that her grading is approximately correct. For a high school distribution of grades it is unusually exact.

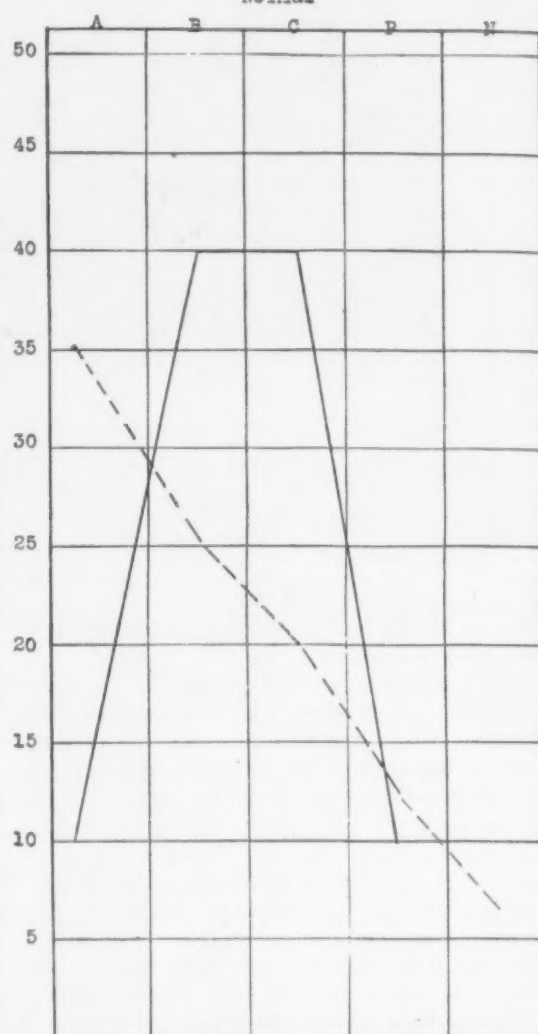
In contrast to the above let us take an imaginary case which would not be hard to find, in reality if we were to look for real loose grading methods that are quite prevalent. The writer in examining sets of grades and making curves has seen much worse. Suppose we have a distribution of grades as follows: 35 per cent A's, 25 per cent B's, 20 per cent C's, 12 per cent P's, and 8 per cent N's. Our curve therefore would be represented as below and we also place the normal curve upon it for comparison.

It would take considerable space to tell all the evils of a system of grading that is so unfair to the pupils and to our fellow workers in the profession especially in the same faculty as the above graph shows. Teachers who give their grades serious thought and attention and who give their pupils enough work to really find out their several powers and abilities never give out grades that would be symbolized by a curve like the one above. That people differ widely in their powers and abilities and that there are very few A-1 people in a hundred does not require any proof or argument.

It can be said that the grading in the Grand Junction high school is quite uniform since we have been making a study of the question. There is no evident inconsistency in any set of grades. The median is usually evident at a glance in any instructor's grades and in the curve of grades for the entire school there is no great deviation from what educational science says it should be. There is no such thing as having one teacher grading mostly in 90's and another grading mostly in 70's or such a condition where one teacher is passing all of her pupils with good grades and another who is failing from twenty to thirty per cent of her own.

Our study of this question has caused a reaction on the part of the students which is wholesome. When there is a wide range of grading in use by the different instructors in a school the pupils become dissatisfied. They think often times that the teacher who is really doing them

GRAPH NO. 2
Illustration of a Poor Curve and the Normal



the most good and who is giving them exactly what they earn and deserve is unfair because another instructor is making her work light and is giving high marks that have not been earned. But with the consistency and fair degree of uniformity that graphing in relation to a normal curve of ability secures, the students quit complaining and settle down to good work that will on its own merits receive a grade that their ability and effort deserve.

The Superintendent As a Teacher of Business Principles

A. R. Finley, Tama, Ia.

Boards of Education in small communities, as in large cities, are made up of human beings and because they are such the members have varied and widely differing opinions. They consist of men and women from practically every walk of life. Every board has among its members business men and many boards include professional men, politicians, and others. Most members of our school boards are successful men and women but too many of them are so successful that they attend strictly to their own business or profession and let the business of the school pass with little attention.

Business ability is an essential quality for an efficient member of a school board but this business ability must be applied to school problems as well as to the problems of private life. To get the varied members of his school board to know true business principles or to practice them in conducting the business of the schools is an important task of the superintendent. While the reverse would seem to be true, there is here a chance for real teaching on the part of the superintendent. The work for the superintendent is to teach his board of education the need of applying and how to apply business principles to the monetary side of the schools.

Here as in the classroom the teacher must gain the confidence of the students. A superintendent cannot expect to teach his board to apply business principles and not have the confidence of the members. To gain the confidence of business and professional men there must be thoroughness on the part of the superintendent. To illustrate: Recently a superintendent stepped into the office of a member of his board and after a few minutes' chat learned that the board member could turn to his books and tell him the amount of goods in stock, the amount on the road from manufacturers, the amount of daily sales for the past year, and the estimated amount of goods needed for the next year. It is needless to say that this particular board member did not develop confidence in his school superintendent when at the board meetings the latter could answer no question intelligently in regard to supplies used and needed in the future without a few days to make an estimate.

Another superintendent of my acquaintance has always been in the habit of recommending some new thing to his board without thinking the proposition thru. For example he recommended not long ago that a course in manual training be put into the schools. When asked

about the added expense, the cost of the teacher, the probable number of pupils, and the requirements for entrance, he could not answer until he had taken a few days' time to investigate.

A superintendent to gain the confidence of his board must be ready to answer specifically the important questions that may arise and many of the detail questions that are sure to be raised before a board is going to change the regular routine of the school system. When he can do this he very likely will convince even those who are opposed to a proposition that he knows what he is about and he will often gain their confidence and support. He should always be perfectly frank and fair. Deception never has gained a lasting confidence.

No superintendent can push his board to business-like methods for the school, but many superintendents do lead their board members to adopt such methods. Sometimes seemingly little things influence the members either to accept leadership or push it aside. No matter how late any of the members of the board are to the regular meetings, the superintendent is losing the confidence of some unless he is there on time. His obligations in the community should be promptly met. All his appointments must

be kept faithfully. His reports cannot be behind, and there must be an air of business about his office.

When confidence is established the greatest part of the teaching is done. However, it will be necessary to know the facts to almost the last detail when recommending a change. Far too many school boards in small communities have been living recklessly and without a plan for spending their income. As a result they remain in a state of chronic poverty. This makes a good starting point for the wise superintendent. For example he will need to point the advantages gained by making a school budget. He should be able to talk convincingly about the plan. He should have an exact account of the expenditures for the last few years with the amount used for each department. He should compare these with the average amount spent by other schools and find where there was a waste or where there was lack of funds. He must know the amount of money coming into the school to be used for the different purposes. He must also have an estimate of the necessary funds needed for the coming year. With these facts in hand he can sit down with business men and talk over the plan. He should also know the objections that are going to be made and be ready to turn them into points in favor of the proposition. He need not orate to his board. Business men are not in the habit of delivering or listening to orations when they meet to conduct business. They get down to facts and put their best ability—judgment and experience to work.

If the superintendent wants to introduce a new course for which there is a demand and to discontinue a course which attracts but few pupils the board will not hesitate to make the change when he can show the cost of teaching is the same for a class of three as for a class of thirty and that the three may be depriving the thirty of some needed facility. Business men are usually anxious to see advantages from the dollar-and-cent basis. They are willing to do many things when thru a readjustment they can see the money value or the money side of an educational proposition. It is sometimes necessary to improve the health of the schools by showing the money saved to the community by such a movement.

The Measurement of Two Elementary Schools

N. L. Engelhardt, New York City

In determining the adequacy of any school building it is desirable to study the details of construction and equipment in the light of the standards which are commonly being accepted today for the construction of school buildings. For the purpose of making comparisons between the situation found in any school building and the desirable standards, the Strayer School Building Score Card has been found to be effective. The decided advantage that follows from the use of this score card, on which are included all of the details that go to make up a perfect building, is that all such details are given separate consideration.

The Strayer Score was utilized for the purpose of scoring public school buildings No. 19 and No. 51 of New York City. A score of 441 points was allotted school No. 51 and 362 points to school No. 19. The total number of points which may be allotted a school building thru the use of the card is 1,000. In other words, a school building which meets the standards set up in the score card is rated at 1,000 points. School buildings are found in many cities which rate as high as 900 to 1,000 points. Experience resulting from the measurement of a large

When new buildings are needed the board does not care a great deal about the sentiment of certain elements which want the new building. What the members want is the fact that the building will be an economic and a civic asset to the community. When the board considers the services of a janitor they want to know the conditions as they are, and the results as they will be, when the suggested changes are made. In the purchasing of new furniture the business men on a board of education are not willing to discard the old until they are convinced that the community will be dollars ahead potentially by making the change. For example in a certain town the recommendation was made for the purchase of new heating apparatus for domestic science, shortly after a gas machine had been installed. The questions came rapidly as to the need. When it was shown that, owing to the increased cost and necessary use of high grade gasoline, the machine was costing over one-half the expense of the department the board did not hesitate to purchase a new machine that could be operated economically.

But there are members on most every board of education that are not business men. But they are not and need not be an obstacle to business methods. There are very few exceptions to the rule that men, who fail to do things in a business like way themselves are not pleased to see others take pains in doing them according to good business principles.

The politician member of the board is another factor to be dealt with. Usually he is more interested to see that a thing shall be politically right than that it be based on business facts. But there is something about the jingle of money that sounds good to all politicians, honest or otherwise. When the superintendent can convince even the politician that by making the recommended change there will be an economic advantage to the community and perhaps dollars saved for his friends or constituents he will make a good political story of it and favor the change.

It may seem unfair to educational principles to base the business management of the schools upon a dollar-and-cent basis but in the business world "business is business" or largely so. As to the work of the superintendent in teaching the board of education a human interest in the schools that is another story.

number of buildings in many cities suggest that a rating between 700 and 900 points is fairly satisfactory. In buildings which are thus rated slight building alterations are needed which, when made, will tend to raise considerably the original score of a building. A score of 600 points has meant, as experience in many school building surveys points out, that considerable alteration was needed before buildings could be brought to a satisfactory standard of efficiency. Buildings that have scored 500 to 600 points have proved to be highly unsatisfactory and yet not so far gone but that extensive repairs and replacements could make them reasonably habitable. When the scores of buildings have fallen below 500 points it has been the universal judgment of those who have applied the score card that speedy abandonment of the building for school purposes was the only justifiable course to be pursued. In all instances where scores of 500 or less have resulted, it has seemed that expenditures for repairs would be highly excessive. It is also seen that there is little possibility, even with the expenditure of relatively large sums of money, to secure as a result of such repairs a building which was suitable for school purposes in the modern sense.

The scores of 442 points for building No. 51 and 362 points for building No. 19 are such, in the opinion of the judges, and in the light of past experience with the score card, as to condemn the use of these buildings for the purpose of teaching the children of New York City. Conditions Found to Exist in School Building No. 51.

School building No. 51 is situated in one of the poorest sections in the city. The site on which the building stands is wholly inadequate for play purposes for children who should be given every opportunity for improving their physical condition. The play space which is provided is mockery of the worst kind.

The basement play room is dark, damp, poorly lighted, poorly ventilated, foul smelling, unclean, and wholly unfit for children for purposes of play.

The main toilets of this building are indescribably filthy and unfit for human beings.

The drain pipes from the roof have decayed to such a degree that in some instances as little as quarter of the pipe remains. On rainy days water enters the classrooms, hallways, corridors, and is thrown against windows because the down pipes have rotted away.

The narrow stairways and halls are similar to those of jails or dungeons of a century ago.

The classrooms are poorly lighted, inadequately equipped, and in some cases so small that the desks of pupils and teachers occupy almost all of the floor space. The painting on the walls is falling off in many places. Apparently no effort is made to provide the children of this building with properly decorated classrooms. The natural lighting of some of the classrooms is totally inadequate. Classrooms housing from thirty to 35 children exist in this building which are fitted only for the storing of lumber. The window sash in some of the classrooms has decayed to such a degree that windows sag as much as six to eight inches when the wind blows.

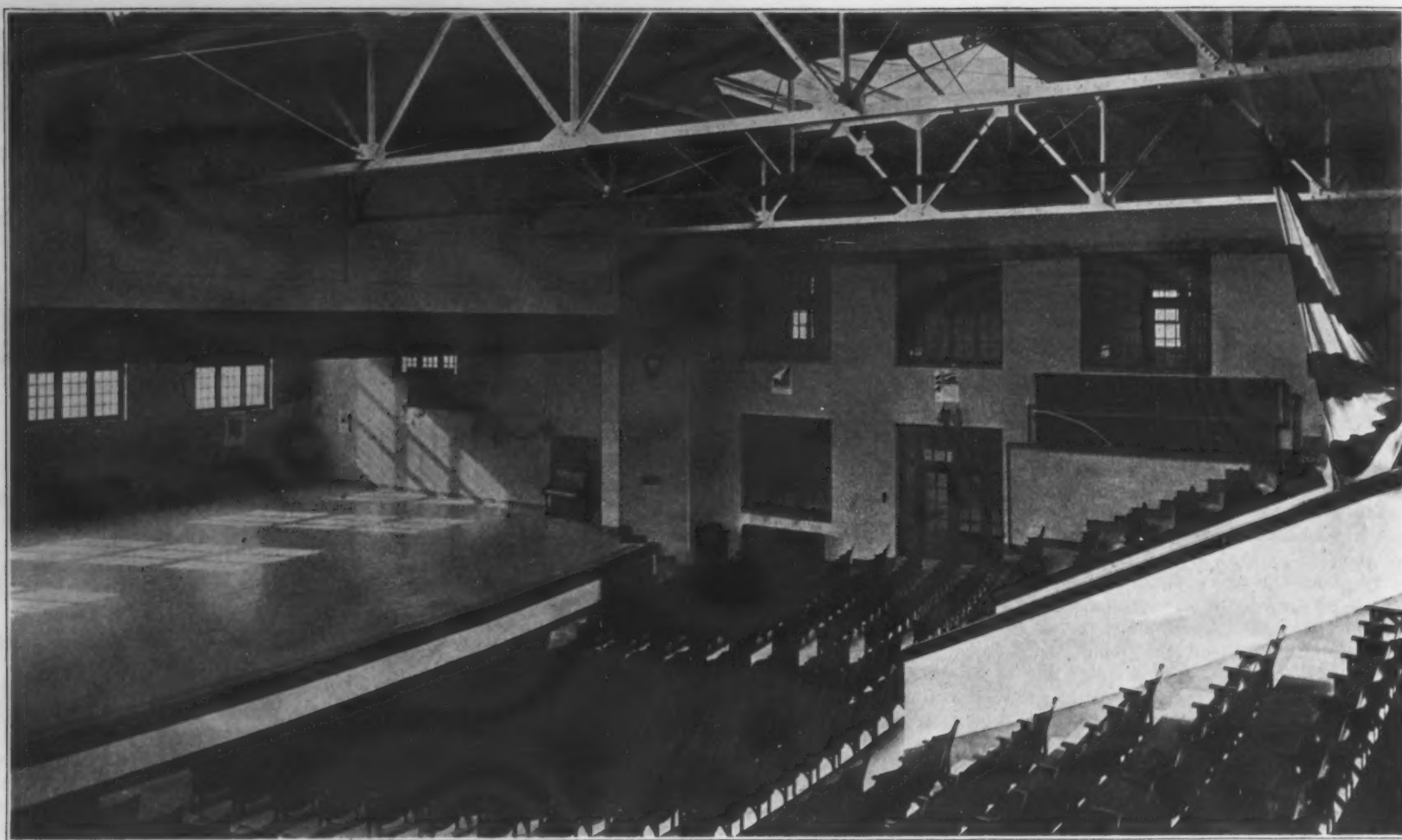
Decay and lack of repair is evident in broken-down doors, boarded up windows, in worn out wooden floors, and the failure to use paint frequently thruout the school building. The interior of the building has not been kept clean because of the small amount of funds provided for janitor service. Dilapidated gas jets and electric light fixtures are in frequent evidence.

The conditions existing in the bathroom provided in an underground dungeon are beyond belief. An equipment of showers for bathing has been provided at a cost which runs probably into hundreds of dollars. No self-respecting person would ever think of using these showers because of the lighting conditions that prevail in this bathroom. It is inconceivable that such a condition as existed in these showers on May 8, 1919, could possibly exist in any school system in any civilized country.

The children of school building No. 51 should be furnished school accommodations which are as adequate, as sanitary, and as cheerful as those that are furnished any children in the United States. The conditions that exist at school building No. 51 indicate that the children of this district are not being considered an asset to the city of New York. If they do secure any educational training it will be in spite of the facilities provided. School teachers who teach where conditions exist which are similar to those of school building No. 51 of New York City owe it to the children put in their charge to give the widest publicity to the existing conditions and to their requests for adequate school housing.

The only redeeming feature of this school building lies in some of the desirable characteristics of the classrooms and the special rooms of the addition built about fifteen years ago. If

(Concluded on Page 111)



VIEW OF GYMNASIUM STAGE FROM THE AUDITORIUM, CLAYTON, MO., HIGH SCHOOL.
Wm. B. Ittner, Archt., St. Louis.; J. Hal. Lynch, Associate.

A Unique Gymnasium and Auditorium

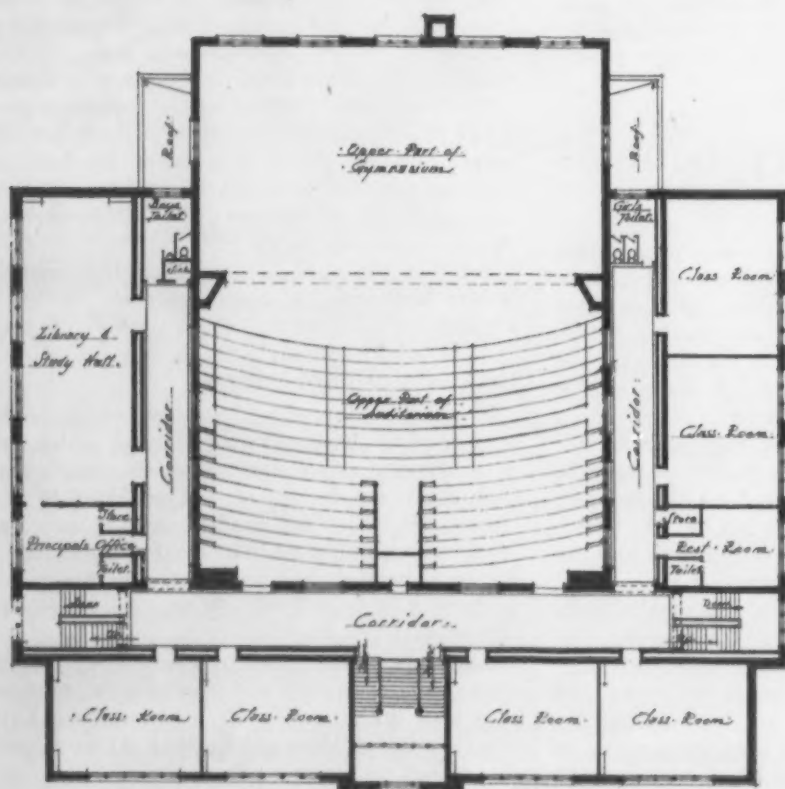
The High School at Clayton, Mo., was completed in 1917 at a cost of \$110,824 for building complete, ready for occupancy. A partial equipment was installed at a cost of \$13,000.

Besides six classrooms accommodating 34 pu-

pils each, and a study-library room accommodating 90 pupils, the building contains laboratories for biology, physics and chemistry, with lecture room; an art room; two rooms for commercial work; a music room; rooms for cooking

and sewing, mechanical drawing and shop work; accommodating in these special subjects a total of 264 pupils.

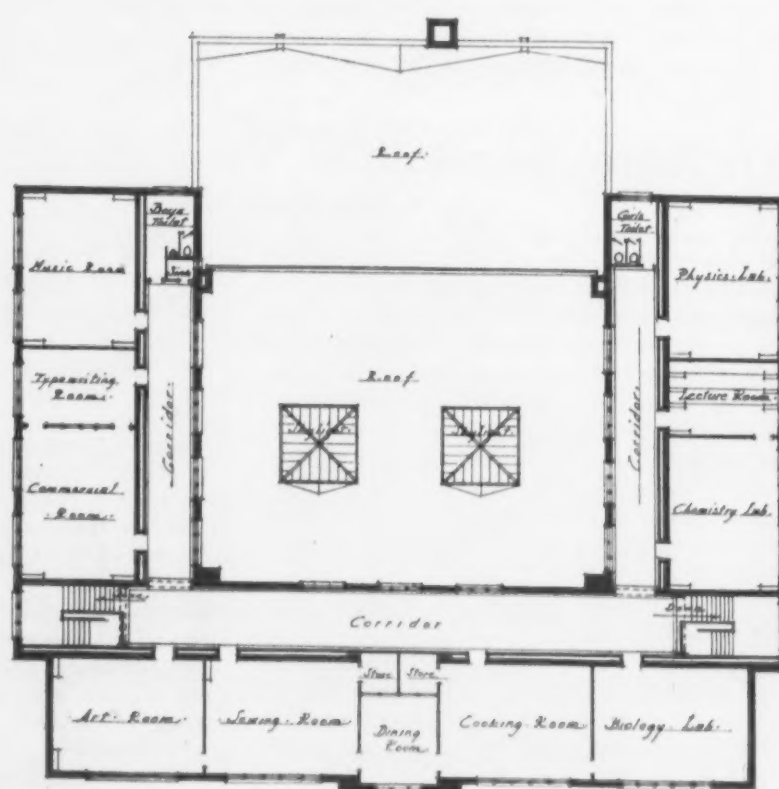
Besides the above, the school is provided with an auditorium seating 700 persons; a gymnasium



FIRST FLOOR PLAN

Scale 1/4" = 1'-0"

CLAYTON HIGH SCHOOL, CLAYTON, MO. Wm. B. Ittner, Archt., St. Louis; J. Hal. Lynch, Associate.



SECOND FLOOR PLAN

Scale 1/4" = 1'-0"

with locker and shower rooms for both sexes, and toilets on each floor of the building.

The administrative rooms include an office for the principal and a rest room for teachers.

The building is heated and ventilated by the steam plenum system and is of fire resistive construction.

The distinctive feature of the school is the arrangement of its auditorium and combination stage-gymnasium, and altho adopted in schools of greater magnitude, such as the Grover Cleveland High School, St. Louis, in 1906; the Froebel school, Gary, Indiana, in 1911; the Central High School, Washington, D. C., in 1913, and in many other of the later schools planned by Mr. Ittner, the arrangement is unique for the smaller high school building.

A reference to the plan shows the auditorium 60x80 feet and gymnasium 45x80 feet.

The auditorium seats are arranged in amphitheater fashion, sweeping from the first to the second floor with exits at both levels, thus distributing to both floors of the building without the use of corridors or stairways.

The stage is enlarged into a combination gymnasium stage 80 feet long and 54 feet wide in the center, with 70 foot proscenium opening between auditorium and gymnasium. It thus becomes serviceable for many uses heretofore beyond the possibilities of the small high school.

By means of a drop screen dividing it, the gymnasium may be made to serve two classes for regular physical exercises. A Shakespearian type of curtain with thirty foot stage opening, side panels and stage settings may be installed without in any way interfering with the usual hanging gymnasium apparatus, thus enabling the presentation of school plays.

With the stage scenery and gymnasium apparatus drawn up out of the way, the gymnasium stage gives accommodation for a chorus of 500 voices with symphony orchestra and many community uses impossible in the smaller school. For graduating exercises, lectures, etc., folding chairs placed on either side of the stage will furnish seatings for 300, thus increasing the seating capacity of the auditorium to 1,000 persons.

For the games the gymnasium stage offers exceptional opportunities, as regulation indoor games of all kinds may be played in full view of those in the auditorium. In the latter case, the proscenium opening is protected by a heavy manila netting, six inch mesh, which is stretched and secured in place.

The auditorium is also provided with picture booth and screen.

SCHOOLROOM VENTILATION

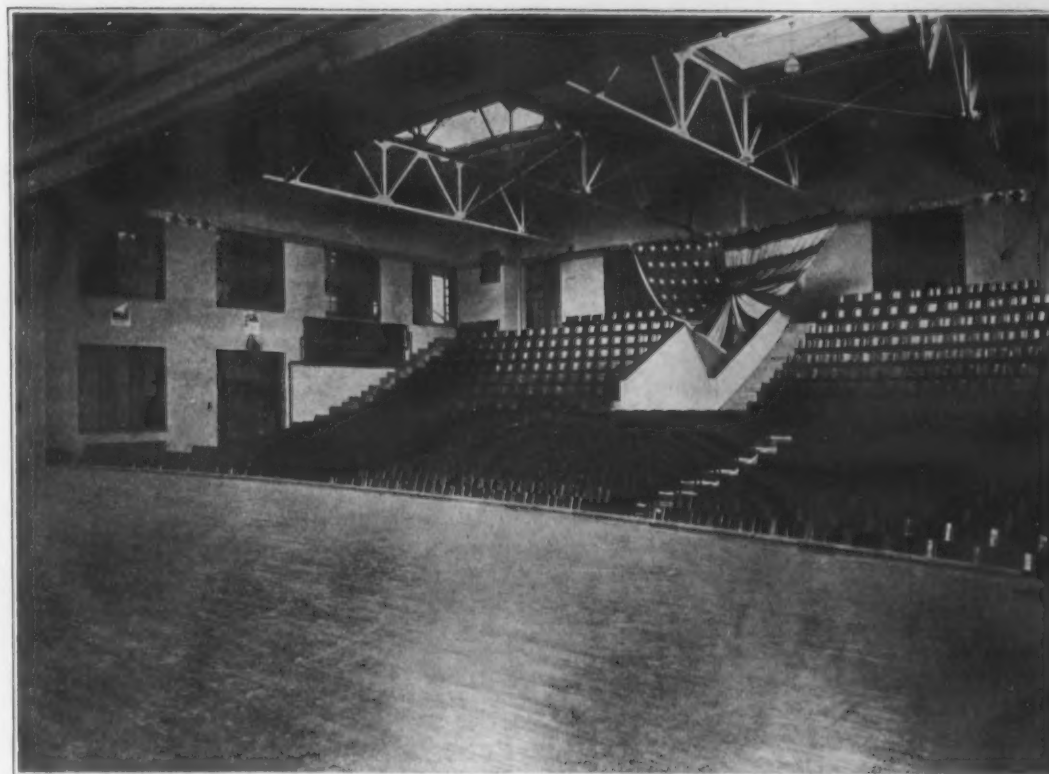
Prof. A. C. Willard, College of Engineering,
University of Illinois.

Good ventilation of a schoolroom must produce and maintain conditions for the complete bodily comfort and good health of the occupants. The physical demands of the human body are insistent and immediate, and should be met regardless of theoretical considerations not thoroly confirmed and tried out by experience.

It is, therefore, the problem of the designer and operator of a schoolhouse ventilating system to discover those factors or characteristics in the air of an occupied room that affect one's bodily comfort, and then control each of these factors within the "comfort range", however narrow that range may be. These factors are not easily determined and in many cases existing standards lack the authoritative basis of real knowledge.

Such knowledge as we have of these factors and the allowable "comfort range" has at the present time established the following "standards" in good schoolhouse ventilation practice.

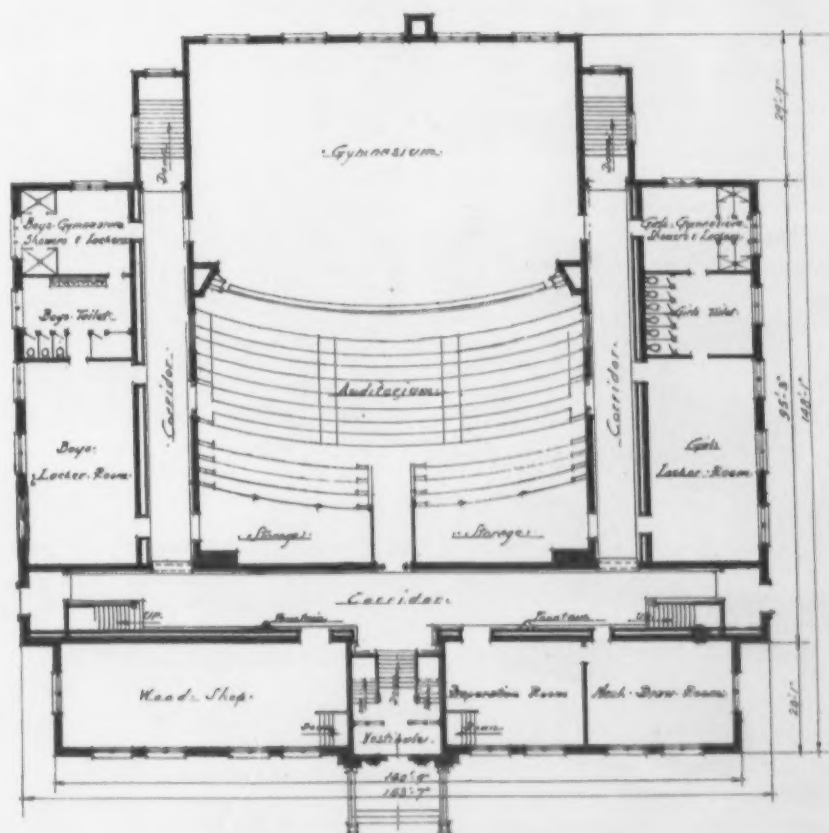
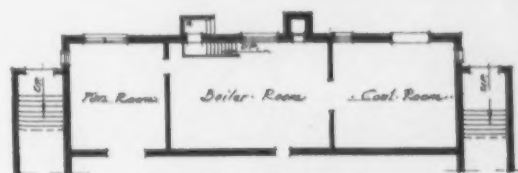
(1) The temperature of the air in a school-



VIEW OF AUDITORIUM FROM GYMNASIUM STAGE, CLAYTON MO., HIGH SCHOOL.
Wm. B. Ittner, Archt., St. Louis, Mo.

room with the thermometer about 5'-0" from the floor, should not exceed 68° to 70°F. Lower temperatures ranging downward to 64°F, are believed desirable, and will result in better work by students and teacher. These lower temperatures require a positive system for maintaining a reasonable degree of humidity.

(2) The relative humidity of the air in the rooms must be under fairly definite control, as it has a direct influence on the "comfort range" permissible in the air temperatures named in (1). Our present knowledge of the humidity factor indicates that while we are comfortable with an air temperature of 70°F, with a relative



CLAYTON HIGH SCHOOL, CLAYTON, MO.
Wm. B. Ittner, Archt., St. Louis; J. Hal, Lynch, Associate.

humidity of 30%, we are also just as well satisfied with an air temperature of 64°F if the relative humidity has been raised to 55%. We are probably better off under the latter conditions as this humidity is about the same as the average relative humidity of the outdoor air.

(3) The circulation or movement of air within an occupied room is also a vital factor in good ventilation. This movement helps to dissipate the body envelope or layer of warm humid air confined by our clothing. Such an envelope prevents proper evaporation from the skin. If this evaporation cannot take place at a fairly uniform rate an individual soon becomes restive and uneasy. It should be understood that this air movement must be slow, not over 150' a minute, as very few people can stand a steady draft of any intensity. An intermittent circulation, such as from an oscillating electric fan, will not prove disagreeable at much higher velocities.

In case no provision can be made for air circulation, it is desirable to practice a periodic flushing of the room by opening all windows for three minutes between class exercises. This should be done regularly at least once in two hours, and will not occupy the class for more than five minutes.

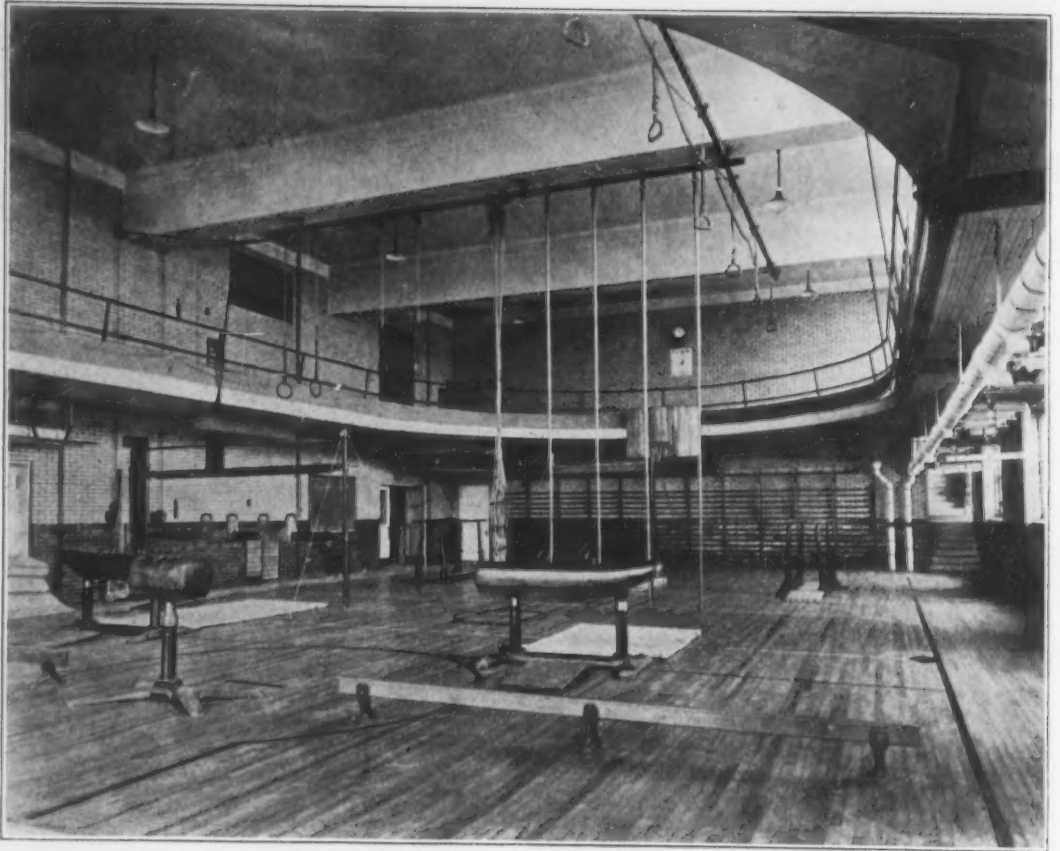
(4) The amount of air supplied to a room depends largely on how well it is distributed to each individual in the room. Legal requirements usually specify not less than 30 cubic feet per minute per occupant in schoolhouse work. Such a requirement really means very little unless the air is uniformly distributed thruout the room before it escapes at the vent registers. In order to prevent this air from escaping before it has been more or less disseminated over the occupants, it has become almost universal practice to place the vent registers in or near the floor line at an inside wall.

(5) The carbon dioxide (CO_2) content of the air in a schoolroom apparently has no bad effect on the occupants and merely serves as a convenient index of the success with which the air has been supplied and distributed to the occupants. As fresh outdoor air contains four parts of this gas in 10,000 parts, an analysis of the inside air will quickly show how effective a ventilation system really is. Good results are obtained when the CO_2 in the air leaving the room has not increased to more than eight parts in 10,000 parts of air, provided each occupant has received his pro rata share of the air passing thru the room.

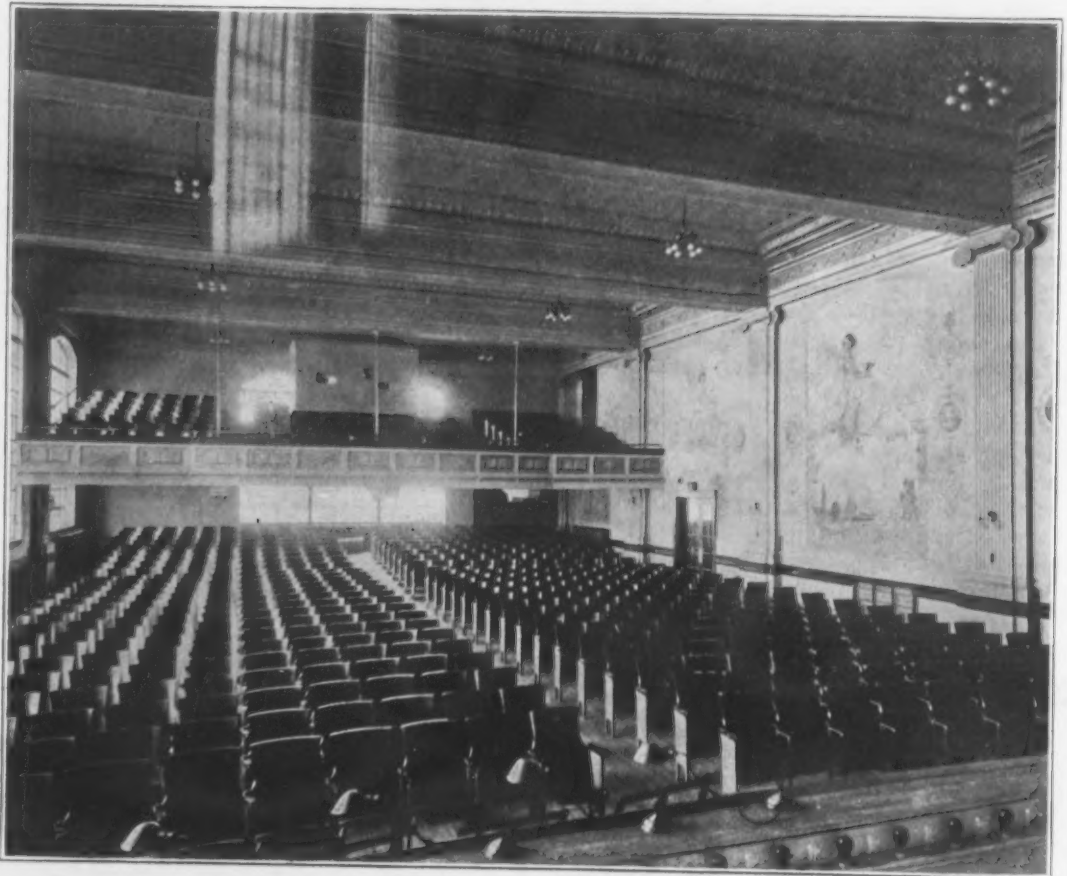
(6) The presence of dust in the air outside or inside of the building always indicates that the bacterial content of the air will be increased, as the one serves as a carrier for the other. Dust is the most prevalent cause of colds and their propagation. Dust from the outside may be reduced by carefully selecting the location for the fresh air inlet which should be placed as high above ground as is feasible, and should always be protected from chimneys or vent outlets. Dust may practically be eliminated entirely by using air washers of good construction, even tho the fresh air has to be taken from the street level. Every possible precaution should be employed to prevent the development of dust within the building.

(7) The odor which may develop within an otherwise satisfactorily ventilated school building is often a source of great annoyance, and may result in dissatisfaction with the entire system. The inlet air must be fresh and all ducts and registers kept clean and free from leaves and refuse. Cloakrooms must be ventilated independently of and not thru classrooms, and all toilets must have separate and positive ventilating systems.

It should be clearly understood that it is practically impossible to control all of the above seven factors, under all conditions of winter



GYMNASIUM, HAMTRAMCK HIGH SCHOOL.
Geo. J. Hass, Architect, Detroit, Mich.



INTERIOR OF AUDITORIUM, HAMTRAMCK, MICH., HIGH SCHOOL.

weather, without a positive system of air supply and removal using a fan or fans with some sort of air washer or humidifier.

Anyone who may wish to pursue this discussion further will find some interesting information in the Report of the Chicago Commission on Ventilation, on "An Experiment in Ventilating a Schoolroom" published by the Commission at Chicago, Illinois.

A system of free traveling dental service for rural school children of North Carolina has been established by the State Board of Health. The purpose of the work is first, preventative, and second, educational. Examinations and treatments will be limited almost entirely to children between 6 and 12 years with a view to teaching

the care of the teeth, to teaching the habit of regular visits to the dentist and to the recognition of the importance of dental care which will remain after the children have reached the teen age.

The establishment of free dental service followed a survey in which it was shown that less than ten per cent of the children have visited a dentist and that 90 out of every one hundred parents never give any attention to the teeth of the children until the trouble can only be remedied by extraction.

Philadelphia, Pa. An employment bureau has been opened in the South Philadelphia High School to assist the girl students in obtaining work while continuing their education. All factories and places of business are visited and inspected by the director of the bureau and each

student is placed in the position which is the most suitable for the individual. The bureau has been a great success and has received the endorsement of both the students and faculty.

HOW ONE SCHOOL BOARD MET A RAPID EXPANSION IN SCHOOL POPULATION.

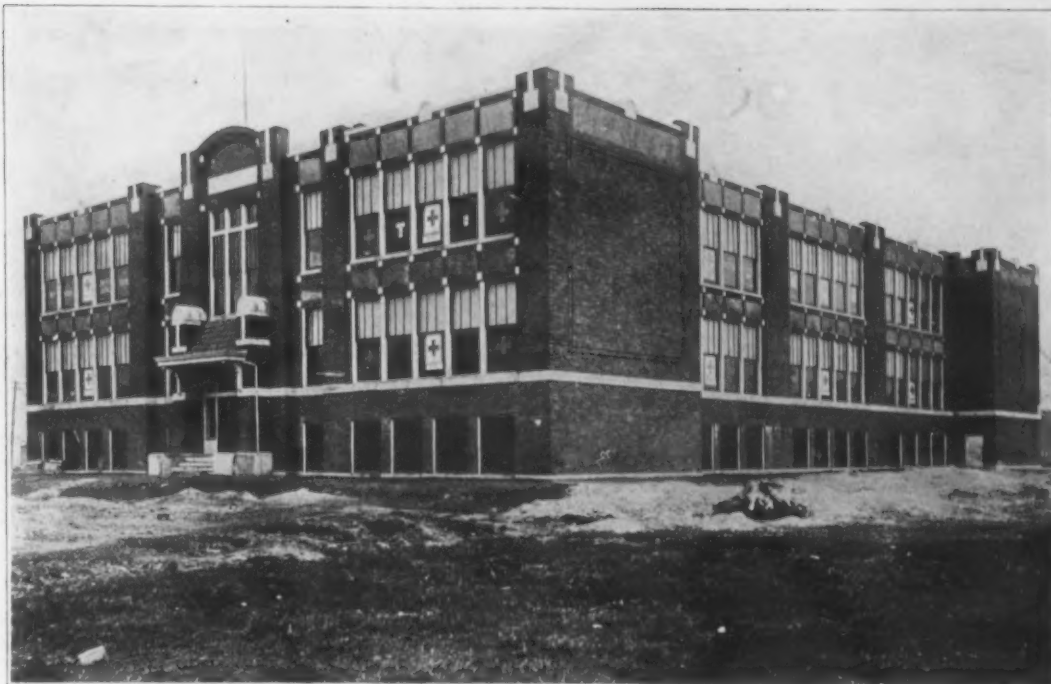
Geo. J. Hass, Archt., Detroit, Michigan

How strongly the war affected every phase of American life is becoming more evident from month to month as publicity is being given to changes which have grown out of the war activities in the cities and villages of the country. While the problem of teachers' salaries has in recent months attracted the largest attention of the newspaper editors, still this has been only one of the troublesome general problems which school boards have contended with and which they are successfully meeting. Just as important and probably more troublesome have been the building problems which have resulted from the vast expansion in school population in many industrial communities and which have been complicated immensely by the increased cost of building materials and labor and by the difficulty of getting building construction complete in anything like reasonable time.

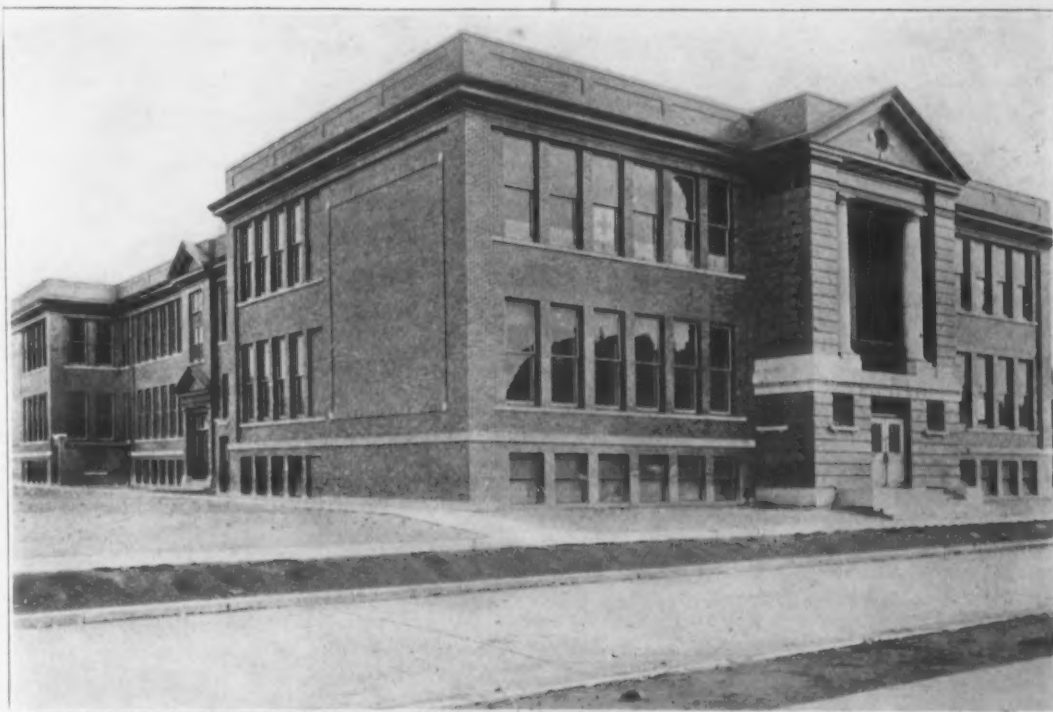
The providing of additional school facilities in the village of Hamtramck, Michigan, has been a somewhat unusual example of successful building construction even in these unusual times. During the period of ten years the community has grown from a population of less than a thousand to 50,000. It has been necessary to keep pace with the growth in the provision of school facilities including buildings and all other features connected with the expansion of the school system. The undertaking has been a tremendous one for the school board and the superintendent of schools of School District, Number 8, which is identical with the limits of the city of Hamtramck.

The process of providing additional school buildings where the growth is normal is not easy at any time. When, however, the population growth results in the addition of 500 to 1,000 children who come into a community within eight or ten months, the problem is almost overwhelming. That has been exactly the experience of the Hamtramck board of education. On several occasions school buildings were found to be inadequate while the construction was still going on, so that additions were planned before the original structure had been occupied.

Hamtramck is a suburb of Detroit and the



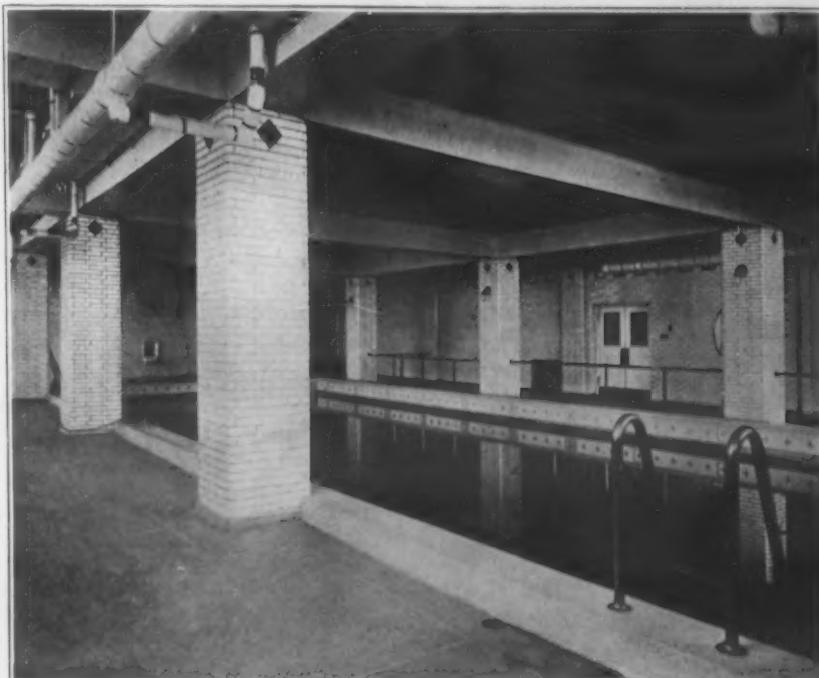
DAVISON SCHOOL, HAMTRAMCK, MICH.
Geo. J. Hass, Architect, Detroit.



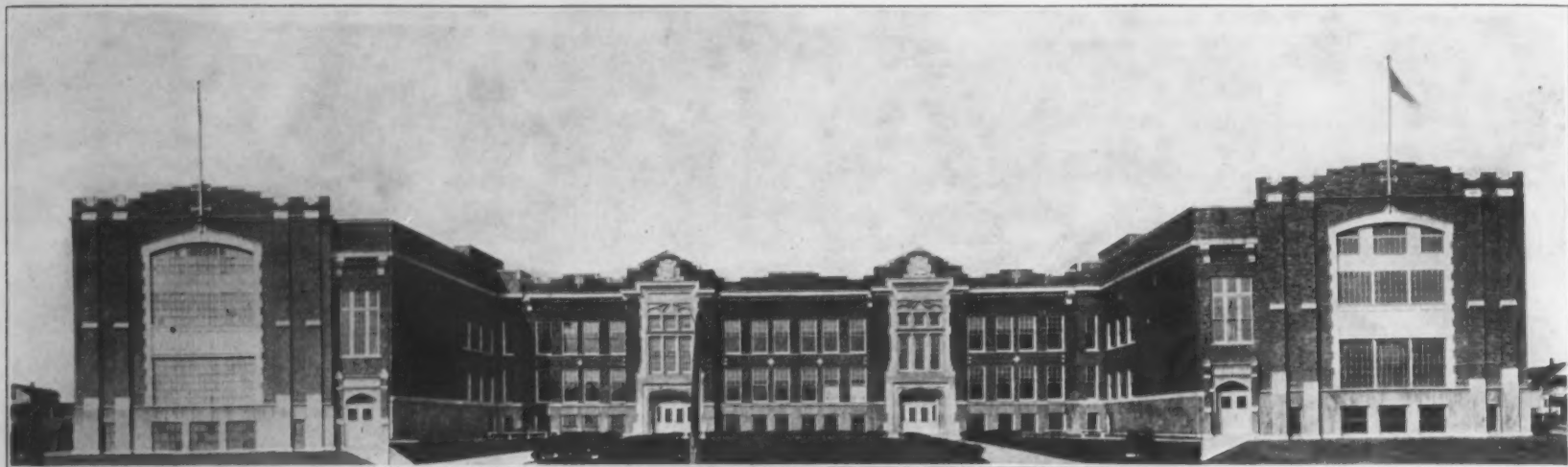
HOLBROOK SCHOOL, HAMTRAMCK, MICH.
Geo. J. Hass, Architect.



TYPICAL FIRING ROOM IN A GRADE SCHOOL, HAMTRAMCK, MICH.



POOL, HAMTRAMCK HIGH SCHOOL.



HIGH SCHOOL, HAMTRAMCK, MICH.
Geo. J. Hass, Architect, Detroit, Mich.

population is made up of working men, including skilled mechanics and many unskilled foreign laborers. The industries which have been located in the town during the past five years include such well known concerns as Dodge Brothers, the Russel Wheel & Foundry, the American Radiator Company, the Acme White Lead and Color Works, and approximately twenty smaller concerns. The large firms sell most of their products to the automobile factories of Detroit and many of the smaller factories are related in one way or another with the same industry. From the construction of the first new school building in the town, the Holbrook School, up to the present time the big problem of the board of education has been to find sites, contract for new school buildings and devise ways and means of financing the constantly growing building projects.

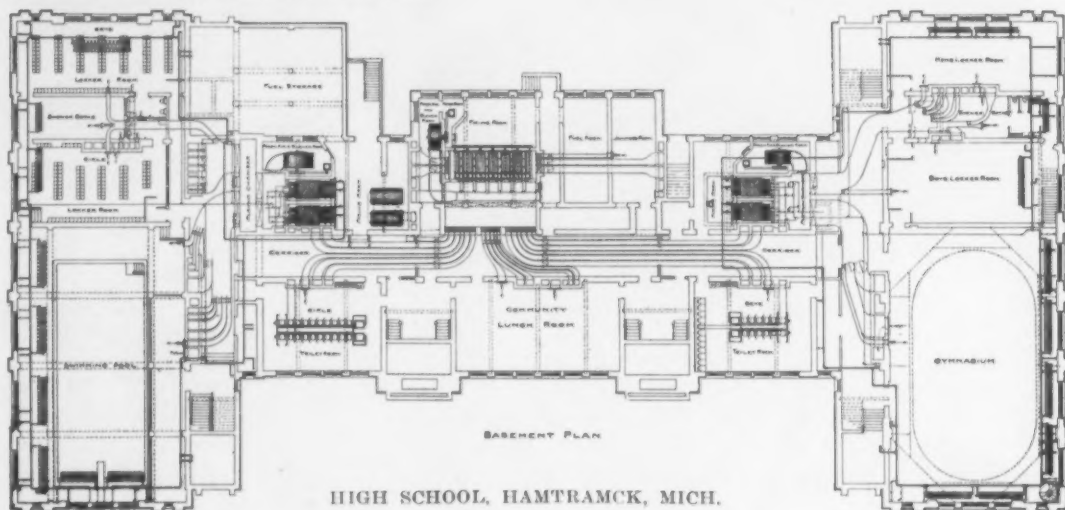
In 1913, the Hamtramck board opened an eight room school building known as the Dickinson school, with four teachers in charge of as many classes. It was thought at that time that this building would afford sufficient facilities for the next ten years. In the following September, however, all of the eight classrooms were filled and no additional space was available in the building. In October, 1913, an addition was also begun to the original Holbrook school and in September, 1914, this addition was also completely filled.

The Holbrook School now has twenty rooms, including classrooms, an office and a library, and while the actual capacity is nominally 800 it had an actual enrollment of over 940 last year. Since its first construction, the building has been enlarged twice until it has now reached the limit of its possibilities. The board of education has provided adequate school grounds and since the last enlargement has built and purchased six additional lots.

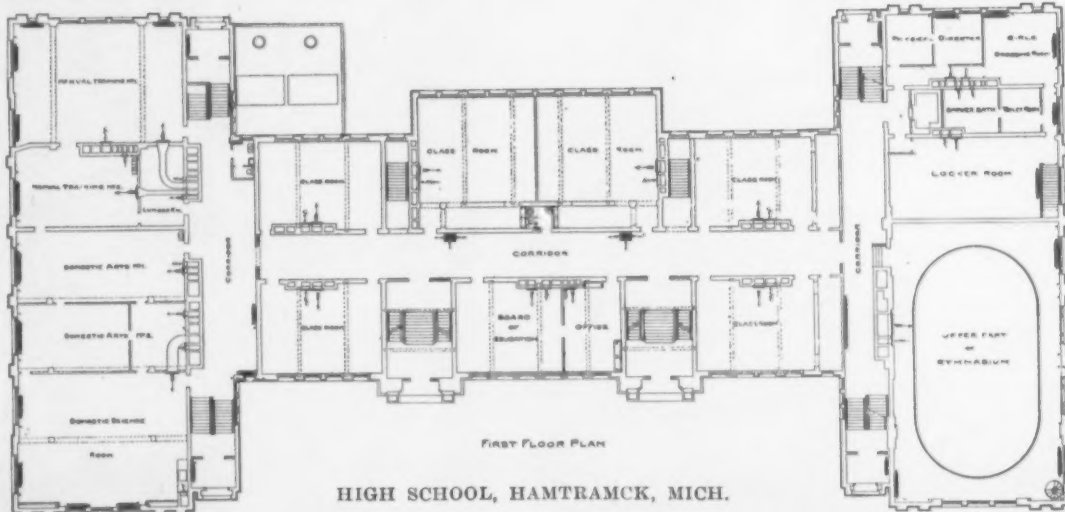
The Whitney School, erected during the summer of 1917, was opened November 5th of that year. It contains twenty classrooms, an office and a clinic room. The building has an enrollment of nearly 1,000 pupils and a teaching corps of twenty-two instructors.

The Hamtramck High School has enjoyed a growth similar to that of the elementary schools and which has made it necessary to erect large additions in order to keep pace with the growing enrollment. During the past two years annexes have been built to the east and west of the original structure, so that the school now is a complete metropolitan high school with every facility for the most varied high school courses. A portion of the building is used for grade school purposes to accommodate the children of the immediate neighborhood.

A glance at the plans which are printed in these pages will show the general arrangement and the special facilities on the first floor and



HIGH SCHOOL, HAMTRAMCK, MICH.



HIGH SCHOOL, HAMTRAMCK, MICH.

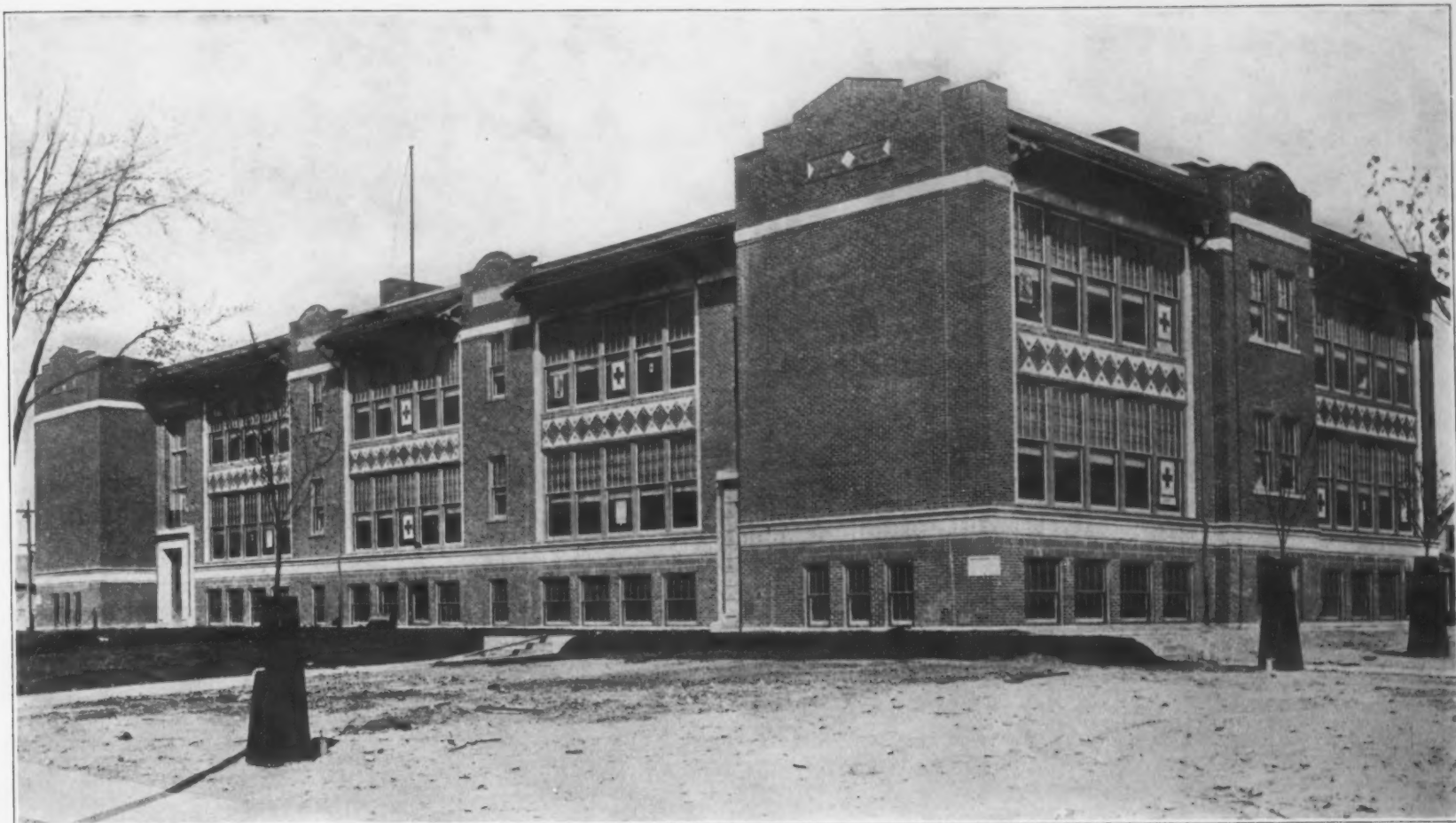
in the basement. The auditorium and gymnasium occupy one wing of the building which can be used independently of the rest of the school. The gymnasium is in the basement and extends thru to the top of the first floor.

The auditorium is on the second floor and has a seating capacity of 800. In the wing of the building opposite the gymnasium and auditorium there is a large swimming pool with shower baths and locker rooms adjoining. The pool is beautifully finished in tile and is of the most modern type and construction.

In designing the school buildings in Hamtramck, the board of education and the architect early began to discard many fixed ideas of clumsy and heavy construction in favor of lightness and strength. The general plan of the buildings was made as direct and simple as possible and every element was studied with a view of housing the greatest number of children in well lighted, sanitary rooms for the least money. The exteriors were simplified to

remain in good taste and to eliminate all unnecessary embellishment that would add to the expense. It was felt that architectural beauty could be obtained by the use of materials which were pleasant in color and texture and by the planning of outlines and masses in the harmonious lines. The buildings should express their purpose as well as their construction in an honest and straightforward way. Standardization of many features in the buildings was quickly adopted as the best manner of economy, but sufficient latitude was allowed in the matter of design and general arrangement of the buildings to give each a distinctive appearance.

All school buildings in Hamtramck, which have been designed and built under the supervision of the writer, have been substantially constructed of brick, hollow tile and concrete. The floors in the classrooms are finished with maple, and terrazzo has been employed for the surface floors in the corridors and stairways. The stairways and the rails for the same are of



WHITNEY SCHOOL, HAMTRAMCK, MICH. Geo. J. Hass, Architect, Detroit, Mich.

solid concrete construction with non-slip treads set in terrazzo finish.

The Whitney school which was constructed in 1917 will give a clue to the cost of all the buildings. Including the entire construction the cost of this building was 21 cents per cubic foot.

The buildings are equipped with heating and ventilating apparatus which delivers fresh warmed air at the rate of 30 cubic feet a minute per pupil. What is known as the furnace blast system has been installed in all the grade school buildings and is in use in the high school in part. In the annexes of this latter building a combination of steam and furnace blast has been used. The installations have proved efficient and economic, and the ventilation has caused no trouble at any time. All of the classrooms are fitted with automatic temperature regulation in combination with a teletherm system which registers the temperature of every room at a central point and gives the janitor accurate information concerning the condition of warmth in each part of the building.

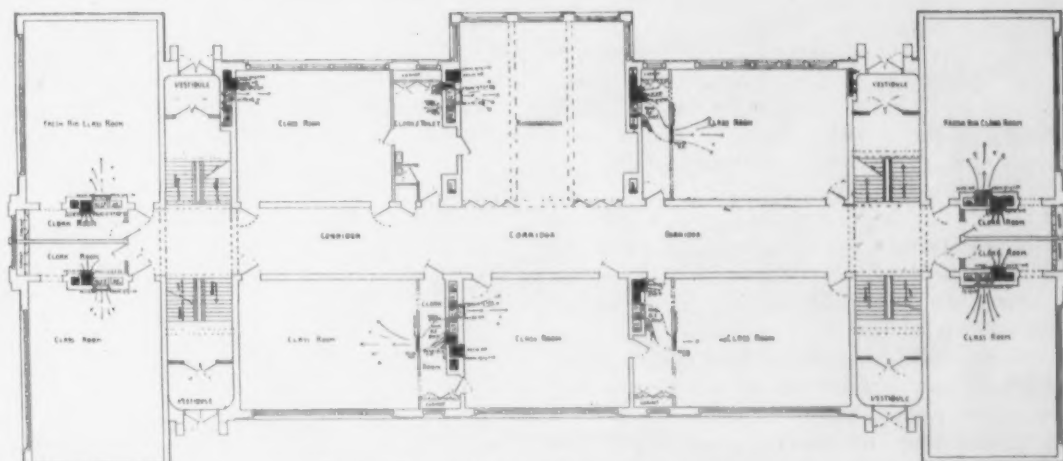
The problem of the high cost of living is said to be one of production to be solved best by increased production. The schools cannot meet their difficulties of high costs by the means of a greater output, unless we consider the very minor financial advantages of the double platoon system. Teachers can handle only one class per day so that their "output" is limited. The only solution is better teaching, a higher standard both of scholarship and professional skill on the part of the teachers, which will result in a higher standard of citizenship among children.

School surveys are changing. The surveyor who went into a community to find something rotten in the schools or to "get" someone is little more than a memory.

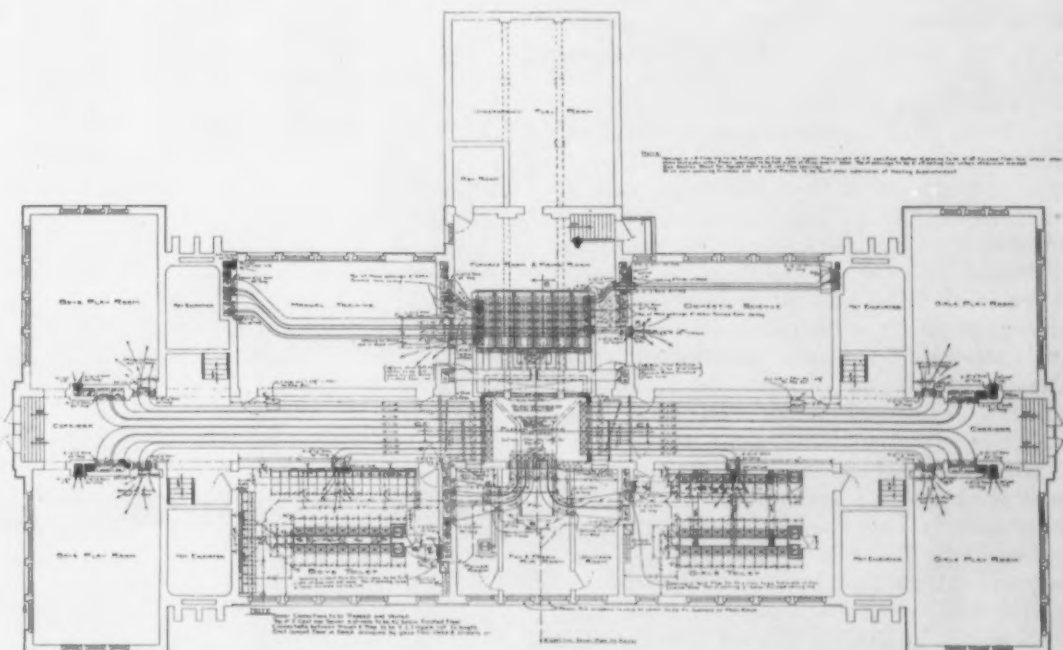
BUILDING OFFICERS TO MEET.

The National Association of Public School Building Officials will hold its annual convention at Rochester, N. Y., on November 13th. Mr. R. M. Milligan of the St. Louis board of education is secretary.

Two thousand children were enrolled in the new continuation schools of St. Louis in September.



WHITNEY SCHOOL, HAMTRAMCK, MICH.



BASEMENT PLAN, WHITNEY SCHOOL, HAMTRAMCK, MICH.



COURT AND PLAYGROUND, THE BEXLEY-WELLING INFANT SCHOOL, KENT, ENGLAND.
Mr. Wilfrid H. Robinson, M. S. A., Architect.

A PRIMARY SCHOOL IN KENT, ENGLAND.

John Y. Dunlop, Greenfield, Tollcross, Glasgow, Scotland.

Modern school building in Great Britain received its greatest impetus since August, 1870, thru a parliamentary act which provided for elementary education in England and Wales. Up to this time the promoters of popular education had raised funds as best they could, and the small areas in which the schools were located were, as a rule, poor and badly equipped.

Infant and primary schools in Great Britain are of comparatively recent design. They are commonly models of good planning because a vast amount of experience has been placed at the disposal of the school authorities, and because usually this type of school far outnumbers those used for higher instruction.

There is no doubt but that it is a duty of school authorities and architects to make the small schools attractive. The obligation applies, of course, to all schools but especially to the lower schools of the people because these exert the widest refining influences thru their esthetic appearance. It is a matter of importance that they should possess beautiful and attractive exteriors, and that the interior arrangement and equipment be conducive to health, happiness and educational progress of the children.

The most recent effort of the Kent County Council in the direction of school buildings appears to be on right lines. The building here illustrated shows a quaint beauty which, to most people, will appear as a valuable educational asset.

The Bexley Welling Infant School.

The Bexley Welling School accommodates 250 children in five classrooms, one of which is arranged as babies' room, or as Americans term it, kindergarten. The hall, which is cut off from the rest of the classrooms, is used for marching and singing. On the one end there is an ample and spacious cloakroom. A teachers' restroom is arranged at the opposite end of the hall. This room is also used for medical inspection.

The arrangement of the whole plan is on very simple lines, with the classrooms ranged on each side. In construction, local material was used, with the result that the walls are built of red pressed brick and the apex of the gables with weather tiling. This combination gives a picturesque effect. When the cost of the whole was considered, it was found to have reduced the cost to a minimum, which is one of the important points in the building of schools. In construction, the walls were built of two 4½-inch

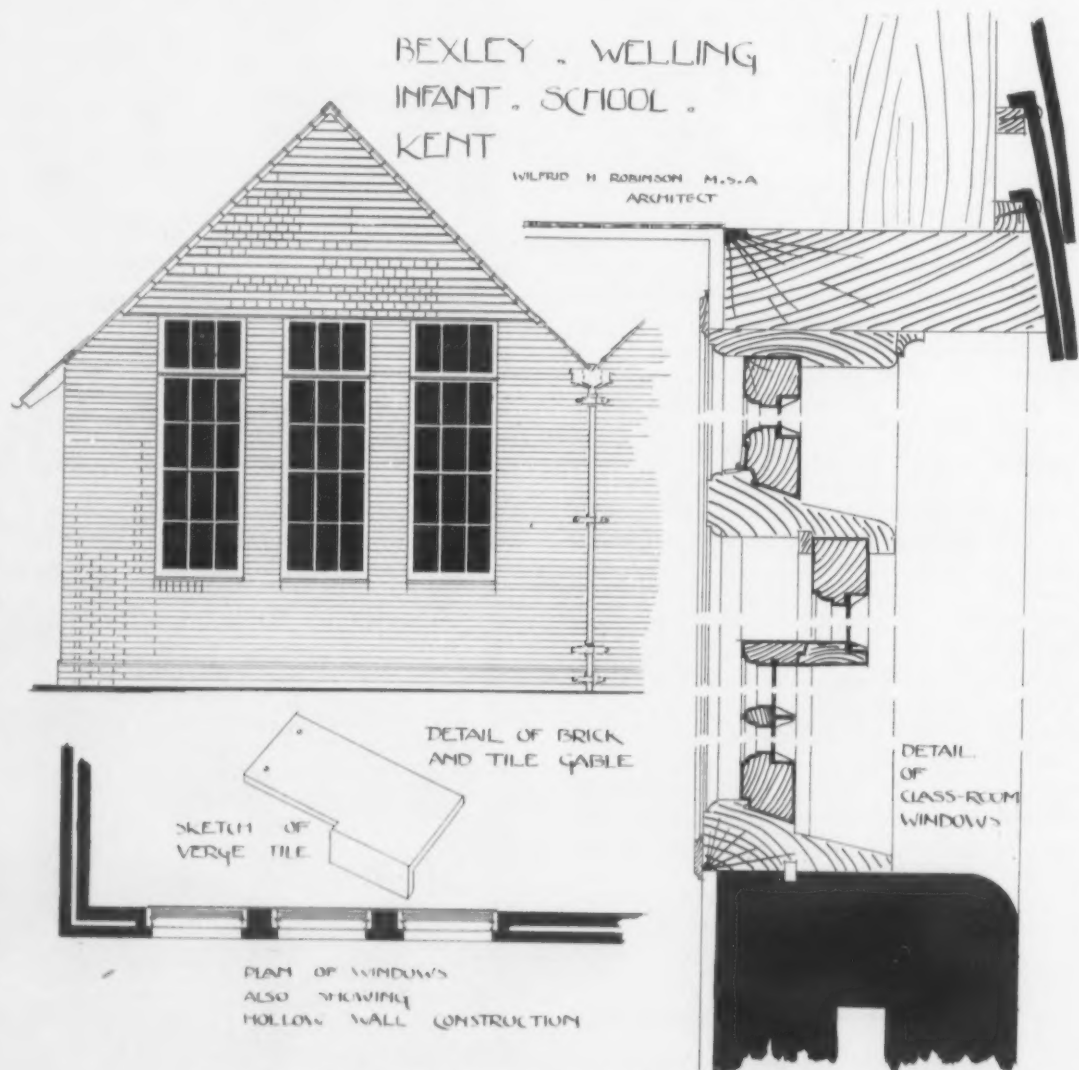
skins, with a 2½-inch space between. The two thicknesses are bonded together with metal ties. At the window and door openings, the jambs and window sills are made solid. The height of the walls is eleven feet from floor to wall head, but as the minimum height for classroom ceilings is fourteen feet, there are at least three clear feet of camp ceiling at each side of the room. This can be seen in the interior half-tone illustration.

In the gable ends and the sides of the hall, the window openings extend right up to the ceiling level and the weather tiling begins at the top of the window lintel. These tiles are hung on wood fillets, nailed to the timber framing.

The design of the hall roof is shown in the drawing. It consists of a truss joined with a

wooden main rafter, and an iron tie and king rod. This supports the purlin which carries the common spars. Each pair of common spars is connected with a ceiling joist. The underside comes in level with the top of the windows.

In the classroom roofs, the same form of truss is used, one in the middle of the width of each classroom with the remaining parts of the framing similar to that described in the hall roof. The roof is covered with tiles which are hung on wood fillets. To eliminate painting or wood-work where the roof tiles overlap the gable weather tiling, a special verge tile is used, as shown in the drawing. The tile is made in two widths, full tile and half tile. When set in position, either at the beginning or end of a course, it laps over the angle cutting of the weather



DETAILS OF CONSTRUCTION, BEXLEY-WELLING INFANT SCHOOL.



GENERAL VIEW, THE BEXLEY-WELLING INFANT SCHOOL, KENT.
Mr. Wilfrid H. Robinson, M. S. A., Architect.

tiled gable. The interior walls and ceilings of the school are in plaster done in three-coat work, while the dadoes are in cement with wood skirting.

The windows are framed in three parts: The upper portion is hinged on the transom and opens into the classroom at the top. The lower portions are made double hung, and both sashes slide vertically on balancing weights.

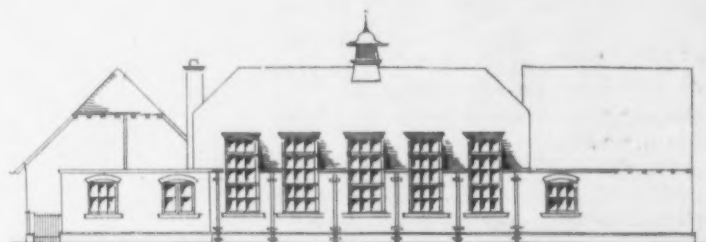
On the inside of the windows and fixed on the sills is a glass hopper screen which causes the cold air in passing to be shot upward when the lower sash is lifted. The cold air mixes with the warm air of the room before it comes in contact with the children.

The school is heated with a low-pressure, hot water system. In the babies' room an open fire supplements the heating system.

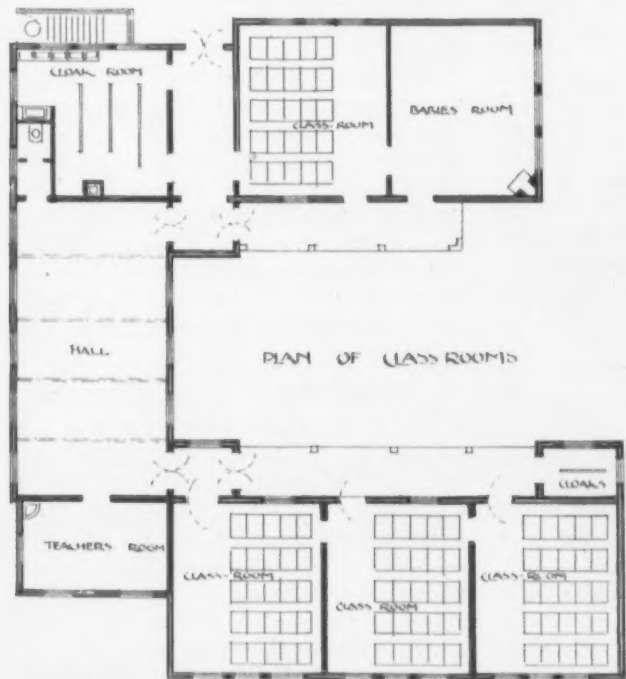
It is predicted that this form of school planning will result in a sound basis for the whole study of economical infant school design and that it will provide suggestive information for further development. Ideas do not spring into the mind by spontaneous action but are derived from extended, close observation of work already done along the line of improvement or of study of what is lacking in the object examined.



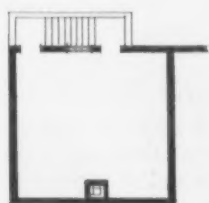
WEST ELEVATION



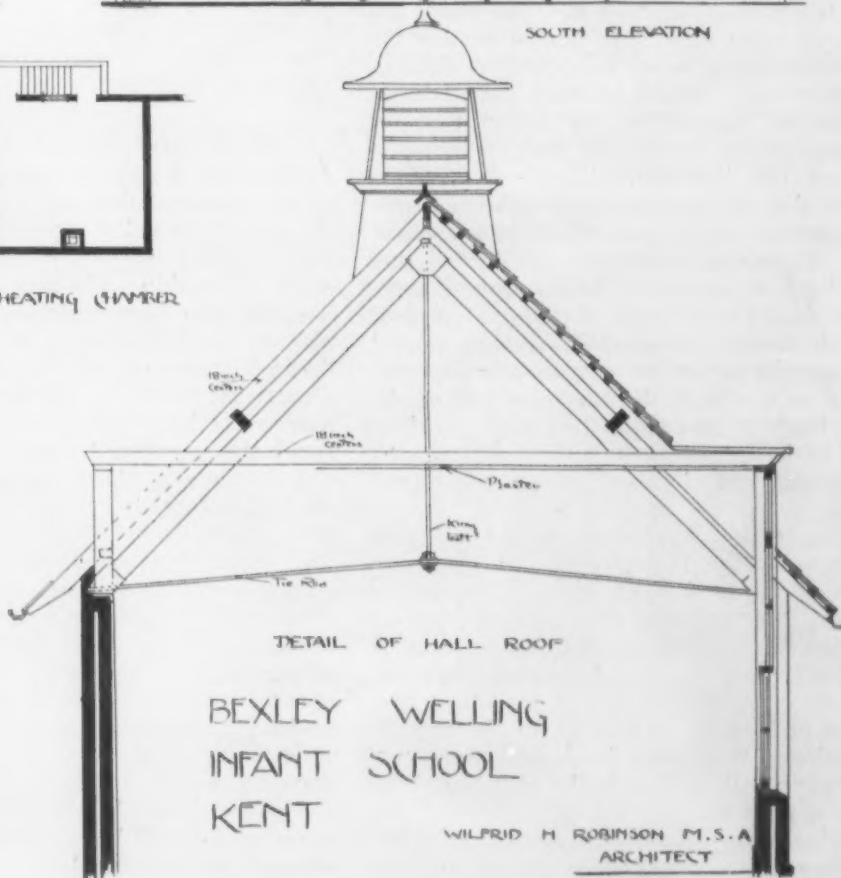
SOUTH ELEVATION



PLAN OF CLASS ROOMS



HEATING SYSTEM



DETAIL OF HALL ROOF

BEXLEY WELLING
INFANT SCHOOL
KENT

WILFRID H. ROBINSON M.S.A.
ARCHITECT

FLOOR PLAN AND ELEVATIONS OF THE BEXLEY-WELLING INFANT SCHOOL, KENT.



THE AMERICAN School Board Journal

DEVOTED TO
LEGISLATIVE AND EXECUTIVE SCHOOL OFFICIALS

WILLIAM C. BRUCE, Editor

EDITORIAL

NEW YORK'S LATEST CONTROVERSY.

The New York board of education and Supt. W. L. Ettinger are in the midst of a fierce controversy over the rules and regulations which were adopted in July and which determine the relative duties and powers of the superintendent, the president of the board, the board itself, and the other executive heads of the school system.

In line with the position so successfully maintained by Dr. Maxwell during his superintendency, Mr. Ettinger holds to the view that he is the chief executive of the school system, with power to initiate and execute both educational and business matters and to supervise and direct all departmental heads and employees of the schools. He denies that the board can delegate any executive powers to its president or can reserve any for itself but that it simply has the power of reviewing his acts and of placing on them its approval or disapproval. He has appealed to the State Commissioner of Education to review the bylaws and to declare them illegal within the state education law. In brief, the organization of the school system is pyramidal in type; all departments and bureaus are correlated for efficiency of instruction and the superintendent is the logical head of the whole organism.

The board on its part, has filed a reply asking for the support of its rules and demanding a reprimand from Dr. Ettinger for the insubordinate language of his appeal. The board declares that the New York School System has an enrollment of more than 840,000 children taught by nearly 25,000 teachers, that its average annual expenditure for school purposes amounts to \$45,000,000 and that its property interests run into the millions. It declares further that the business of the schools is presided over by more than 3,500 clerks and executives of varying grade, is complicated and specialized and requires the services of many experts in different forms of work. It is absolutely impossible for one individual to control and supervise so vast an enterprise, to pass personally on merits of the numerous acts of the expert heads of departments, especially as these relate to business matters and to manage the employment and dismissal of all school employees.

The entire answer of the board is based upon a common sense interpretation of the state education law and when read in connection with the rules indicates that the board has no intention of interfering with Dr. Ettinger's complete control of the educational affairs of the schools or that it intends to permit any policies or acts on its part or on the part of its business department heads and employees to interfere with or impede the educational interests of the city.

Judging at a distance the board has by far the better of the argument so far as common sense and efficiency in administration are concerned. Dr. Ettinger is asking for powers

which he cannot possibly exercise and is assuming that he has duties which are beyond human ability. Carried to its logical conclusion, the position he takes would lead to the establishment of an educational bureaucracy that would be sadly in contrast with our democratic ideals as expressed in government and industry of these reconstruction times.

Ultimately the matter is purely legal and the interpretation of the state commissioner of education will determine the correctness of one or the other position. It will be interesting to see the outcome of the controversy.

THE TEACHER SHORTAGE.

Reports come from every section of the country concerning the shortage of teachers. Uniformly the news dispatches state that the rural schools are suffering and only very rarely is the statement made that some city above five thousand population is lacking instructors or supervisory officers. It is not likely that the returns will be all in before the middle of October, but careful estimators place the shortage at 35,000, while more than fifty thousand schools have engaged inferior teachers.

The reason for the success of the cities in getting full corps of teachers is simple; they have adjusted their salary schedules to draw back into the service many teachers who had left for industrial or commercial occupations and they have attracted hundreds upon hundreds of young women from village and rural schools.

The rural schools in the less favored sections of the country are suffering a setback in efficiency that places many of individual schools back where they were nearly twenty years ago. The disgraceful aspect of the situation lies in the fact that the country districts are more able to pay adequate salaries to teachers than are the cities. Farm values have risen enormously during the war and the value and amount of farm products has more than doubled. The ability of the vast majority of farm owners and renters to pay for the education of country children has grown a thousand-fold as compared to the amounts involved in raising the salaries of the country teachers. The farmer has been more interested in bettering his stock, putting up new barns and silos and buying automobiles and phonographs, than in paying for the education of his children.

THE SOLDIERS AND EDUCATION.

Wisconsin is enjoying the splendid privilege of seeing several thousand young men between the ages of 20 and 35 return to school for further education that will prepare them for more useful citizenship. The men are soldiers of the late war who have returned to civil life and who are entitled under a special enactment of the legislature to a monthly stipend of \$30 for educational purposes. These same men might receive in a lump sum a bonus of \$10 for every month they spent in the service (\$50 minimum) and continue in their present occupations at the high salaries which prevail in the agricultural as well as industrial centers of the state. They are deliberately choosing a stipend which may continue to a limit of four years and which will be barely sufficient for subsistence, tuition and books, under very economical management. They are largely seeking additional education along vocational lines—engineering, mechanics, agriculture in its different branches, trade instruction, law, medicine, dentistry, pharmacy, commercial branches. Hardly a type of vocation could be mentioned which is not represented or will be represented when the enrollments are completed.

It is inspiring to see, as we have, a young carpenter who attended only a rural school for

six brief winters, enter a school where he will learn the elements of the building industry so that he can achieve his ambition of becoming a building contractor. Dozens of similar instances might be added from personal experience and can be duplicated in any small neighborhood. The enrollment officers and teachers at the universities and vocational schools of the state can cite hundreds of gratifying cases.

The reason why these young men are anxious to return to school is simple: They have seen the value of education as it shows itself in everyday life and they are determined to grasp the opportunity which has come to them.

The School Board Journal advocated in 1917 the enactment of federal legislation which would open to all returned soldiers the opportunity of vocational reeducation. The experience of Wisconsin is ample evidence that the gratitude of the state for services rendered is appreciated and that men in large numbers will accept an education when it is offered to them. The example of Wisconsin might well be emulated by every state and by the nation.

A SCHOOL BUILDING PROGRAM.

The United States Bureau of Education makes a pertinent suggestion concerning school-house construction when it advises that every community determine several fundamental facts before it undertakes a school building program. The Bureau would have the board of education ask itself these questions:

What is the present school population?

How much has it increased in the past 8 or 10 years?

Where is the congestion greatest?

In what direction is the tide of population moving?

What kind of buildings should be put up and in what parts of the city in order to provide for growth as well as for present enrollment?

How much playground space is needed?

What kind of activities should be provided in the school buildings in order that the children shall grow to be healthy, intelligent, self-reliant, and worthy to carry on the traditions of the city?

Considering the funds available for building purposes in the present and in the immediate future, what items in a comprehensive building program should be taken up first, and what items can be left for future building appropriations?

We dare say that nine out of ten school boards cannot answer these questions without considerable study. Especially the third and fourth questions deserve accurate replies as a basis for intelligent action, but it may be doubted whether any ten cities in the country have made a survey of these problems.

A building program is essential for any school board which has a lack of space, but it must be worked out with facts and figures, not guesses and opinions.

TWO TEACHER PROBLEMS.

Out of the unrest which pervades school systems in this troublesome first year of reconstruction, several problems stand out as chief difficulties for the school boards and superintendents to surmount. Leaving aside the major problems of the shortage of teachers, the difficulty of increasing tax levies for higher salaries and the need of greater democracy in city administration, the minor questions are no less troublesome and difficult to adjust so that the delicate mechanism of the school system be not disturbed.

Contract breaking has never been so prevalent in school circles as during the present year. The reasons are obvious and the remedy, too, is obvious, but not easy.

The suggestion that school boards sue teach-

ers for damages when they fail to keep their agreement is a joke the force of which can be appreciated only by one who has gone thru the experience. Far better as a remedy is the increase of wages to a plane where the teacher is above the temptations of a business career or the blandishments of the large city school system.

A second difficulty relates to the housing of instructors. Especially in small towns and in cities of medium size, has it been difficult to find boarding and lodging places for the new instructors who have come into the system. The housing shortage all over the country is acute as a result of the reduced building construction during and before the war. This shortage has caused thousands of families to live in quarters which are just sufficient for—or even short of—their needs. Again, the prosperity of the middle and working classes has been such that thousands of families who gratefully accepted the added income from a spare room, now scorn the money in the light of a large weekly wage.

In most cities superintendents have given publicity to the situation and by their appeals have found boarding places. The situation has been met in several towns by the rental and furnishing of flats by the school authorities. This is nearly an ideal solution but it is not always possible.

School boards and superintendents may well consider the proper housing of their teachers a matter of prime concern. The teacher must live in a cheerful, comfortable place and she must have ample, appetizing food so that her physical and mental well-being is preserved. If she is to be the leader which we expect her to be, she deserves to enjoy such living conditions which will ensure her social position in the community and will enable her to thrive and grow spiritually and physically. Plainly she deserves a home that is satisfactory for a refined, educated person of fair income, and it is the duty of the school boards to meet the emergency just as the government did in its war industries during the late conflict.

SCHOOL STRIKES.

With nearly thirteen thousand strikes under way in the United States it is not to be wondered at that one or two "school strikes" occur. Children are natural imitators and when fathers, older brothers, and neighbors are striking or talking about walkouts boys and girls feel that this method must be used to assert their rights.

In Youngstown, Ohio, last month, Supt. N. H. Chaney gave a good illustration of the attitude which school authorities should exhibit toward outbursts of juvenile rebellion against reasonable school orders and discipline when strikes occurred as a protest against a longer school day. He demanded thru the press and other public means that all strikers be disci-

plined by their parents and gave notice that none would be readmitted to school without the personal presence of the fathers and satisfactory assurance from the latter that the children had been properly disciplined. He let it be known that the school authorities were collecting definite information as to the nationality of parents, their occupation, attitude on strikes, etc., and that a report would be made of the findings. The result of his stand was that the outbreaks were very effectively squelched. Disturbances created by older boys who stoned children on the way to school were settled by prompt arrests and only a few days were necessary to restore quiet.

Summary action is the remedy for school strikes.

HIGH PRICE OF SCHOOL BOOKS.

School authorities who are seeking to compel publishers of textbooks to maintain prices that prevailed during the past ten years are seeking to fly in the face of plain economic conditions. They are in the long run injuring the schools because they are reducing the ability of publishers to issue textbooks at the present high standard of authorship, editorial service, and mechanical make-up. Just in this connection it is well to repeat here a discussion of the situation which appeared recently in the Publishers' Weekly:

"In no field of book-publishing does the manufacturing cost form so large a percentage of list price as in the schoolbook field. Royalties are on a lower percentage scale, sales are in large units which keep selling costs low, the advertising allowance does not need to be large. Competition is extremely keen with the consequent tendency toward the lowest possible selling price.

"This means that the rapidly rising costs of book manufacture have put problems of greatest severity upon these departments. And, as if to make difficulties still more difficult, the exacting character of the average schoolbook contract has to be taken into consideration. One finds it hard to think of any other manufacturer who has been obliged by law to hold to the same prices today that were fixed two or three years ago.

"Last year with costs up at least 33½ per cent many publishers changed part of their prices tho with a total increment to the list of only about 5 to 10 per cent. Others curtailed here and there and reduced their output of new titles and waited for things to settle. As far as wartime restriction goes, things have now cleared themselves but the increased manufacturing costs are now over 50 per cent above what they were two years ago and not at all likely to come down.

"Many prices as shown by the new list have been changed this year, about 20 per cent of the total number, but these by only about 10

per cent over the previous rate. This can only mean that many titles are being taken care of out of previously manufactured stock and that rigid economies are being used to keep the prices on the rapidly moving competitive titles at the lowest possible figure. Whatever may be the increases in the general cost of widely used goods, the prices of books have not anywhere touched the average.

"This protects the public in its book purchases and assists in the school committee's acute problem, tho it leaves the final adjustments still ahead. The book dealer who finds his public commenting on an upward tendency in the price of schoolbooks can state with confidence that in few commodities has there been so small a percentage of increase."

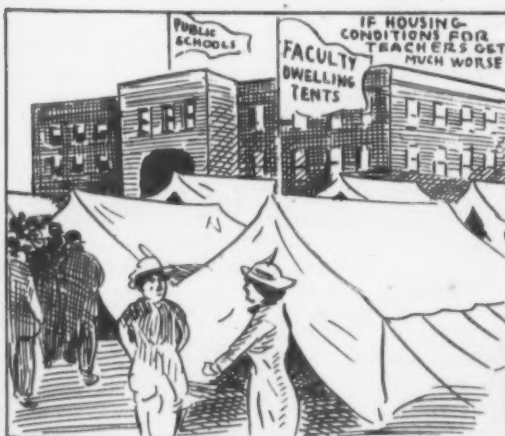
North Dakota is to undertake a state textbook publication experiment. A commission is now engaged in an inquiry into the cost of books, methods of publication and distribution, etc. The project is being furthered by the nonpartisan league.

A strike of teachers at Linton, Ind., during September is indicative of the times. The teachers refused to permit the township director of the schools to employ any new teachers until all members of the "union" had been satisfactorily employed. When new teachers undertook to open the schools, they picketed the buildings and persuaded both pupils and teachers to return to their homes.

Cleveland has lost the very able services of Mr. Mark L. Thomsen as president of the board of education. Few men indeed develop in four years the able leadership and acquire the complete grasp of administrative principles and facts which Mr. Thomsen has shown. His latest large undertaking thru which the Smith tax law limiting levies for school purposes was amended, was statewide in its benefits. He is a man of vigor and courage, whose absence from the councils of the Cleveland schools will be long felt.

Certainly teachers have never been overpaid in the United States. A contract made in 1811 between Miss Flavia Langdon of Cincinnati, and the school board of Union Township, near Hamilton, Ohio, has been recently found. It provides that the teacher be paid \$1.50 per month and that part of the salary consist of flax, wool and linen. To reach the log schoolhouse the teacher traveled 25 miles daily on horseback.

Harry M. Thrasher has been appointed State Supervisor of High Schools in Illinois. He makes his headquarters at Springfield in the State Department of Public Instruction. Mr. Thrasher was for some years principal of the Anna-Jonesboro Community high school at Joliet, Ill.



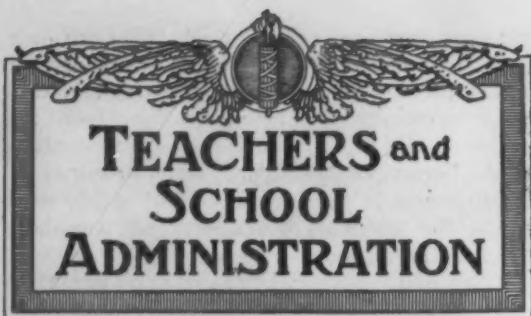
A Method of Solving the Shortage of Boarding Places.



Nearly a Hundred Thousand New York Children are Without Schoolrooms.



In Indiana Teachers Picket a School.



TEACHERS' COUNCIL FORMED IN WASHINGTON, D. C.

The board of education of Washington, D. C., on June 12th, authorized the organization of a council to be composed of teachers and other school employees. The teachers of Washington had requested that such a body be formed, and the board had indicated its approval of the idea.

The council has been formed as a step in the establishment of a closer and more helpful relation between the board of education and the officers, teachers and other employees in the system, and is constituted as follows:

First. The superintendent of schools, the assistant superintendent of white schools, the assistant superintendent of colored schools, and two representatives of the administrative officers;

Second. Five delegates from the high school and normal teachers;

Third. Eight delegates from the grade teachers;

Fourth. Three delegates from all of the other teachers not included in the above groups; and Fifth. Three delegates from employees not included in any of the above groups.

For Permanent Organization.

The representatives from the several groups above named to be respectively chosen at a meeting open to all members of the groups, and these meetings shall be called to order by the secretary of the board of education and shall then be organized by the group itself.

That all groups electing delegates be requested to confer upon their delegates the power, if it seems advisable to all of the groups, to convert this preliminary organization into a permanent council.

That as soon as notified of the organization above contemplated the president of the board shall fix a date for a conference between the council and the board of education to consider—

First. The advisability of permanency in organization;

Second. The preparation of school estimates;

Third. To confer with the board generally on matters of policy; and

Fourth. The fixing of regular dates during the year, not less than four in number, for conferences between the said council and the board of education and an arrangement for emergency conferences.

Teachers' Councils in Other Cities.

The requests for a teachers' council followed an investigation made early in 1919 by a special committee of the Washington Teachers' union, of which Miss Cecilia P. Dulin was chairman. The report described the operation of teachers' councils in Boston, Chicago, Cleveland, Minneapolis, New Britain, New York, St. Paul, and a few other cities.

Teachers' Councils in Various Cities.

(From "Teachers' Councils," a report by the Grade Teachers' Union, Washington, D. C., 1919.)

City	Date	Number of teachers.	Number of council.	How empowered.	How elected or chosen.	Meetings.
Boston	1918	3,300	22	By superintendent, who is a member.	President of 22 teachers' organizations are members.	1 each school month.
Chicago	1913	7,000	74	By Superintendent.	Teachers were divided into 74 groups, each electing 1 member to council.	On call of superintendent.
Cleveland	1917	3,500	26	do.	Groups elect members by ballot.	3 each semester.
Minneapolis	1914	1,600	41	do.	Election of members directly by groups.	6 a year.
New Britain	1911	300	50	do.	Election of members by groups.	1 each month.
New York	1913	23,000	45	By board of education.	Members of groups elect 2 or 3 delegates to a conference, which elects members of the council.	1 each school month.
St. Paul	1913	1,000	12	By charter from city government.	Groups elect members to council.	Do

*This council went out of existence when Ella Flagg Young was removed from office.

Problems for the Teachers' Council.

The report defines the teachers' council as an advisory body of teachers called to confer with the superintendent. It enumerates as among the questions to be discussed by the teachers' council changes in courses of study and textbooks, sanitation of buildings, discipline of pupils, salary increases and schedules, and substitute service; and it suggests that for discussion of subjects like these the teacher members of a council bring first-hand knowledge and experience that are invaluable.

What Makes an Effective Council?

In discussing the factors that make an effective council, the report says:

"To be effective a council must be invested with power conferred by the administrative office. Therefore the initiation of a council must proceed thru invitation from the superintendent or board of education.

"In most instances where councils exist there has been enthusiastic and hearty cooperation between the teaching body and administrative powers. There has been some friction and disagreement, resulting usually, however, in conciliation or compromise.

"The superintendents and boards empowering councils report generally that the conferences bring great help to them, and cooperate most enthusiastically and intelligently with the administrative office. Superintendent Spaulding, of Cleveland, in an article in the October School Review, speaks highly of such cooperation and its advantages. He inaugurated two councils—Minneapolis in 1914 and Cleveland in 1917. Superintendent Jackson, of Minneapolis, says: 'I would say that the educational council was of more help to the superintendent than to the teachers. It keeps the superintendent in touch with the teachers, as the representatives hold meetings of their constituencies after each meeting of the council, reporting and getting advice, so that the superintendent and his assistants are made aware of the teachers' opinions.'

"Where adverse criticism is given of councils it is along the following lines: Too little interest exhibited by the mass of teachers in instructing their council representatives; a lack of balance in the representation of the various groups, one group, such as elementary schools, having many more representatives than the high-school group; and too little initiative in the introduction of discussion. These flaws in the council movement can easily be eliminated before organizing by carefully surveying the conditions which exist in a school system."

TEACHERS AND ADMINISTRATION.

Under a new law passed by the 1919 legislature of North Carolina, each teacher must hold a certificate from a physician showing that he or she is free from tuberculosis or any other infectious disease. The law while primarily intended to protect children from infection, has proven of great benefit to the teachers themselves as the examinations reveal conditions which were not suspected.

A county normal school for the training of teachers in village and rural schools has been opened at New Philadelphia, O. The school will draw its students from Tuscarawas County.

A charge of discrimination against married women teachers has been made against the board of education of Bridgeport, Conn., because of the dismissal of married women, whose husbands had returned from military service. It has been the policy of the board to keep the perma-

nent list open to unmarried women and to use the married women for filling vacancies and for substitute work.

A federation of teachers of all schools and universities in the United States is being urged to promote the interests of teachers and education in general. The movement which is being led by Prof. W. P. Burris of the University of Cincinnati, will be strictly a teachers' union with no affiliations with the labor unions.

Under a new state law, all teachers in Ohio previous to the opening of schools, were required to take the oath of allegiance to the nation and to the state. The state education department issued copies of the oath for the use of teachers.

The school board of Tulsa, Okla., is facing the problem of housing accommodations for an increased faculty. The board is considering the erection of apartment houses in the several districts as a solution for the shortage of teachers' homes.

St. Joseph, Mo. The board has adopted a rule providing that any teacher who left the service of the schools for patriotic reasons, to enter the employ of the government, may not be subject to the rules requiring certain scholastic training. A recent rule of the board provided that applicants for teaching positions must have had two years of normal training. The rule worked to the disadvantage of teachers in government service because they had not had the normal work required but were in all respects qualified teachers.

The school board of Lynn, Mass., has rescinded a rule of the board of 1917 forbidding the employment of married women as teachers. Such teachers may be appointed provided they have the necessary qualifications. The rule was a detriment to the schools because a number of valuable instructors were lost.

A new pension law just adopted by the state of Ohio provides for the establishment of offices and the employment of a secretary and other business officers. The law goes into effect in September, 1920, and provides for an appropriation of \$10,000 for the establishment of the system.

Under the law each teacher is required to pay four per cent of her salary up to \$2,000 and the boards of education must pay 5.57 per cent of their payrolls. The state treasurer is made custodian of the fund.

Teachers may be pensioned after 36 years' of service, or at the age of 60 years regardless of length of service. Compulsory retirement at 70 is provided.

Upon retirement teachers will be paid a minimum of \$300 per year. If compelled to resign because of ill health, at least thirty per cent of the average annual salary for the preceding ten years will be paid. Teachers who leave the service before becoming beneficiaries, will receive a refund of what they have paid in, with four per cent interest.

All teachers in city systems must enter the state system September 1, 1920, and all pension systems in cities may be taken over by the state system upon vote of the teachers.

The shortage of teachers in Minnesota is reflected in a recent report of the employment director of the Winona state normal school. It is stated that the school received 610 requests for teachers and principals between January and June and was able at the end of the scholastic year to supply 143 graduates. More than a hundred requests came to the school during July and August.

Of the graduates who reported their initial salaries, fifteen have accepted less than \$80 per month and none is receiving less than \$75. The average is \$85 and the three highest are \$1,350, \$1,200 and \$1,060.

Buhl, Minn. The board of education has rented a large house in Buhl and a ten-room house in McKinney to provide boarding places for the teachers employed in the centralized schools in these communities. Both houses are completely furnished and heated.

TEACHERS' SALARIES.

The finance committee of the Chicago school board has recommended a minimum salary of \$1,200 for all teachers. The increase would total about \$100,000 a year.

Martins Ferry, O. Flat increases of \$100 have been given to the teachers.

Detroit, Mich. Under a new schedule submitted to the city council, the school board plans to raise the minimum salary of teachers from \$920 to \$1,200 a year and the maximum from \$1,540 to \$1,800.

Dayton, O. Grade teachers have been given increases of \$30 a month. High school teachers,

(Concluded on Page 107)

NEW RULES and REGULATIONS

NEW YORK BOARD ADOPTS NEW RULES.

The new York board of education has adopted the first part of a complete revision of its by-laws, covering sixteen sections of the entire code of laws. The work which was begun more than a year ago involves so many important considerations of policy and precedent that it has been necessarily slow and exact. The New York schools have an enrollment of more than 750,000 children and employ 25,000 teachers, as well as an army of supervisory officials, clerks, janitors, etc. The annual expenditures of the school department exceed \$43,000,000 which is in excess of the total amounts spent by the eight or ten next largest cities and is greater than the combined expenditures of half a dozen western states. The by-laws of the board are as important as any state code of school laws in the number of children and teachers, and the size of the school system which they control.

The section on the powers and duties of the superintendent are of more than local interest. It clearly defines the duties of the superintendent both on the educational and business side of school work and leaves with the board the final veto on all important matters of policy and practice.

The section reads:

1. He shall enforce all provisions of law and all rules and regulations relating to the management of the schools and other educational, social and recreational activities under the direction of the Board of Education. He shall be the chief executive officer of such Board and the educational system. He shall have a seat in the Board of Education and the right to speak on all matters before the Board, but not to vote.
2. He shall have supervision and direction of Associate, District, and other Superintendents, directors, supervisors, principals, teachers, lecturers, medical inspectors, nurses, auditors, attendance officers, janitors, and other persons employed in the management of the schools or the other educational activities of the city and under the direction and management of the Board of Education. All resignations shall be made to the Superintendent of Schools, who shall report them to the Board of Education.
3. He shall, upon the recommendation of the Board of Superintendents, transfer teachers from one school to another, and shall report immediately such transfers to the Board of Education for its consideration and action.
4. He shall report to the Board of Education violations of by-laws and regulations, and for such violations he may suspend an Associate, District, or other Superintendent, director, supervisor, expert, principal, teacher, or other employee until the next regular meeting of the Board of Education, when all facts relating to the same shall be submitted to the said Board for its consideration and action. He may direct an Associate Superintendent or a District Superintendent or departmental head to suspend a principal or a teacher or other employee for violation of by-laws or regulations, and to prefer charges against such principal or teacher or employee for presentation to the Board of Education.
5. He shall recommend to the Board of Education the organization of day and evening schools and other educational and recreational activities into major divisions, each of which shall be supervised by an Associate Superintendent to be assigned by the Superintendent of Schools, subject to the approval of the Board of Education.
6. He shall have supervision and direction over the enforcement and observance of the courses of study, and over all matters pertaining to playgrounds, medical inspectors, recreation and social center work, libraries, lectures, and all other educational activities and interests under the management, direction, and control of the Board of Education.
7. He shall issue such licenses to teachers, principals, directors and other members of the teaching and supervising staff as may be required under the by-laws and regulations of the

Board of Education. Such licenses shall be issued on the recommendation of the Board of Examiners.

8. He shall be Chairman of the Board of Superintendents, and all communications from said Board shall be subscribed by him. In his absence or inability to serve, the Board of Education shall designate an Associate Superintendent to serve as Acting Superintendent of Schools.

9. He shall assign District Superintendents to the work of supervision in the local school board districts in such manner that each shall have charge of one or more districts. At the end of a school year he may change or continue such assignment as he may deem best for the interests of the districts concerned. He may change the assignment of a District Superintendent prior to the expiration of a school year by filing with the Board of Education, at the time of such change, the reasons therefor. District Superintendents, when not so assigned, shall be assigned by the Superintendent of Schools to such other professional duties as he may think proper, and he shall report such assignment to the Board of Education at its next regular meeting for its consideration and action.

10. He shall prescribe, and issue to the persons concerned such blanks, forms, registers, and instructions as he may deem necessary to be used in the proper inspection, examination, and management of the schools and other educational, social, and recreational activities under the direction of the Board of Education. He may require such reports from all persons referred to in subdivision 2 of this section as he may deem proper. All circular letters or general communications addressed to the schools, containing instructions to, or requesting information from, principals and teachers, shall be issued in his name or with his approval, except communications issued by the Board of Education, its President or committees.

11. He shall visit and examine, or cause to be visited and examined, all the schools under the jurisdiction, in whole or in part, of the Board of Education, and shall report to the Board of Education on the conditions thereof.

12. He shall transmit to the Auditor, to the District Superintendent, to the principal and to the teacher concerned, in each case of appointment, promotion, transfer, or of any change in salary status of any member of the teaching or supervising force, a certificate setting forth the salary schedule under which the teacher shall be paid, the salary year, and the date upon which an annual increase in salary shall become due.

13. Whenever, for any cause, the number of teachers assigned to a school shall become greater than the number required in such school the Superintendent of Schools shall assign the teachers in excess to duty in other schools, until such time as they shall have been regularly transferred to vacancies.

14. He shall have power to close temporarily any of the public schools in case of emergency, and shall report such closing to the Board of Education at its next regular meeting.

15. He shall have power to delegate, with the approval and consent of the Board of Education, any of the above-mentioned duties to one or more Associate Superintendents.

16. He shall fix the hours during which Associate Superintendents shall be in their respective offices, and shall prepare a manual of regulations for the use of District Superintendents, directors, inspectors, and other supervisors, in the conduct of their respective offices.

17. He shall forward to the Retirement Board the name of any contributor to the retirement fund who has had ten years or more of city service, and who, in the opinion of the Superintendent of Schools, is physically or mentally incapacitated for the performance of teaching service. He shall forward to the Retirement Board the name of any contributor to the retirement fund who shall become seventy years of age during the ensuing school term.

Beloit, Wis. A new daily program has been adopted for the high school, providing for six periods of one hour each. The first forty minutes are to be given to recitations and the last twenty minutes to supervised study. The change will add one-half hour to the school day.

The school board of Richmond, Ind., has adopted a rule providing that any person affiliated with, or attending a meeting of any secret society, fraternity, sorority or other similar organization, shall not be permitted to attend the schools. No pupil is permitted to wear a pin, badge, color or other insignia of a fraternity while in attendance at school. A penalty of suspension for the remainder of the semester is provided in case of disobedience.

SCHOOL BOARD NEWS

WISCONSIN COLLEGES OPENED TO WAR VETERANS.

The Wisconsin legislature has enacted a soldiers' educational bill which will affect 10,000 former soldiers and will involve a total expenditure of \$15,000,000 for the full five-year period covered by the bill. The act becomes effective at once and makes necessary an estimated expenditure of \$3,800,000 for the next year.

The privileges of the educational bill are open to all soldiers, sailors, marines and nurses of Wisconsin, who served more than three months in the world war. Time spent in the S. A. T. C. is not counted. Those eligible to receive college training will receive \$30 monthly from the state to pay for their training and a four-year collegiate course is permitted.

Soldiers, who are qualified educationally, may attend the university, normal school, Stout Institute, mining school and any private college which had the S. A. T. C. system, or any other institution of high school or collegiate grade, not conducted for profit. Special courses will be provided for those desiring special instruction.

Under the bill, soldiers who accept the bonus voted at the recent election, may not also have the educational bonus. They may have the privilege of the latter provided they return the bonus money to the state. It is also provided that where a soldier desires a course of training, he may accept the bonus money, and at the same time, be given a free correspondence course by the University of Wisconsin.

Money to finance the educational bill is to be raised by a one mill tax annually on the general property of the state and a surtax on incomes. Two-thirds of the necessary sum is to be raised by the general property tax and by an educational surtax of 1.2 per cent on corporation and individual incomes, the net incomes of which are over \$7,000 and \$12,000 respectively.

The bill passed in the senate with one vote in opposition and in the house with an opposition of 22.

AMONG BOARDS OF EDUCATION.

Crafton, Ill. The board has adopted a rule providing that children who reach the age of 6 on or before November first may enter the first grade in September. All other children must wait until the opening of the next term.

The board has raised the salaries of the janitors at Lynn, Mass., ten per cent. In presenting their request for higher salaries, the janitors had asked for a twenty-five per cent increase.

Supt. N. A. Young of St. Louis County, Minn., has recommended the passage of a new law providing for an auditing examiner in each county to whom the clerks of the rural districts may turn for instruction in keeping records and in determining the legality of expenditures in the districts. Under the present arrangement, there has been no audit, outside of a hasty examination of the expenditures by the respective school boards. The district books are not required to be audited and the clerk is required only to make the annual report.

Woburn, Mass. The entering age of school children has been lowered to five years.

In compliance with the school board law of Ohio, the Dayton board of education has agreed on a membership of seven as the future size of that body. The new board will be a reduction of seven from the former board.

The Board of Education of Lawrence, Kansas, recently passed the ruling that children six months under the age previously stipulated by the rules for children beginning school, might be admitted if general intelligence tests given showed that such children were clearly of the mental age of six or above. Before any such child may be given these tests or admitted to school the written consent of the Superintendent must be given and the written consent of the child's parents or guardians to the effect that they are willing that the child shall be given such tests and will abide by the results of the tests. These tests have been the basis

(Continued on Page 82)

BUILDING and FINANCE

THE SELECTION OF SCHOOLHOUSE PLANS.

School boards frequently make themselves liable to criticism on the part of architects and building directors by adopting methods that are altogether unethical. In most cases it is unexperience that causes boards to ask for plans according to a method which is opened to abuses of all kinds and which architects have found by bitter experience to be used by persons and public bodies who are not altogether honest in their intentions.

The Architect and Engineer (San Francisco) reproduces in its August issue an instance of an unwise method of asking for schoolhouse plans and adds some strong criticisms in the form of comments. School boards, we think, may well read the following with good results:

The following notice appeared recently in a San Rafael paper:

NOTICE TO ARCHITECTS.

The Board of Education of the City of San Rafael hereby invites architects to submit preliminary sketches and estimates for a combined school and auditorium building to be erected on the lot at the southwest corner of Fifth and B streets, San Rafael.

The building to be of re-inforced concrete, two stories in height; the first story to contain rooms for a six grade school and kindergarten, with the necessary offices, cloakrooms, and lavatories; the second story to contain the auditorium.

Further details may be obtained from the Clerk of the Board, Roger S. Phelps, Box 59, Brookdale, Santa Cruz County.

To the architect whose sketch meets with the approval of the Board will be awarded the contract of preparing final plans and specifications and supervising construction.

This advertisement was authorized by the Board at a meeting held June 23, 1919.

ROGER S. PHELPS, Clerk.

The above is not unlike other notices that have appeared from time to time in our country newspapers as a bait to the unsophisticated architect who would sell his services for the asking. Let us assume that there will be half a dozen members of the profession who will answer this advertisement, each one offering a sketch or two in accordance with the general conditions laid down in the notice. Possibly there will be one sketch out of the six that will please the Board of Education. In that event its author may be asked to prepare plans for the school at a stipulated commission.

On the other hand, if none of the sketches is satisfactory, there is nothing to prevent the board from engaging an outside architect. Then all the work put in by the six competitors must be charged off the books as profit and loss, mainly loss. The architects, in other words, have sold their talents simply for the asking. And in doing so they have cheapened their profession in the eyes of the layman. The Board of Education has obtained the plans for nothing, and if they happen to contain some good points, as they usually do, the trustees are at liberty to make use of them by instructing their architect to embody this or that feature from this or that plan, giving the "best building possible, from the various schemes presented."

Some day, perhaps, our reputable architects will awake to a realization that this sort of thing is a serious barrier to the progress of the profession and they will decline to make themselves victims of a practice that is little short of piracy.

If a school board wishes plans for a schoolhouse, let it hire an architect outright. If it desires a competition, let it go about it the right way.

NEW BUILDINGS FOR UNORGANIZED TERRITORY IN MAINE.

A program for improving the school building conditions in the unorganized territory of the state of Maine has been worked out recently by

General Agent Gordon in accordance with the provisions of the new law which went into effect July fourth. The former law was interpreted as not permitting any expenditure by the state for the erection or repair of school buildings and the people of the unorganized territory have always been required to provide buildings at their own expense. As they had no means of assessing persons or property, the result has been many undesirable buildings, because the people most directly interested have been compelled to bear most of the expense and therefore making it out of the question to provide first-class buildings.

The new law makes liberal provisions for the much needed improvement. It is predicted that after two or three years, the state will be in position to furnish an example, as it should in the only elementary schools directly under state supervision, of proper school buildings for rural communities.

It is planned to erect model rural schoolhouses in townships where typical rural school conditions exist and to remodel such buildings as are satisfactory, so that all of the required conditions of a model building will be met. In places of a temporary nature, or whose future seems uncertain, a type of portable school building will be tried.

It is believed that the contemplated improvements will extend over a period of several years because of the lack of funds the first year and because of the impossibility of superintending all of the work at one time.

BUILDING AND FINANCE.

Wheeling, W. Va. The school levy for the next year has been fixed at 56 cents for each \$100 of real and personal property. The levy represents an increase of ten cents over last year and means an increased tax of \$65,000.

Two new schools, the Lindblom high school and the Orr elementary building, were opened for the first time in the city of Chicago with the opening of the fall term. The former cost \$1,250,000 and the latter \$385,000. In addition to these structures the Chicago board plans the erection of three new schools and three additions to present buildings during the year. At least one high school of the Lindblom type will be constructed.

The school board of Hutchinson, Kans., has adopted a budget of \$233,374 for the year. A reduction in the tax levy has been made possible by increased property values.

The school board of Akron, O., has adopted a budget of \$1,665,000.

Miss Anne C. Crosby of Belfast, Me., has made a gift of \$40,000 to the city toward the erection of a new high school. The citizens are required to raise an equal amount and the entire fund is to be invested until with accumulated interest, the total shall have reached \$100,000.

The citizens of Bellefontaine, O., at a special election voted a special levy of two mills to provide an additional \$16,000 for school needs.

The citizens of Ashtabula, O., at an election, voted an extra two-mill levy for school purposes.

The school board of Decatur, Ill., has asked for \$440,000 for the maintenance of the schools next year. Approximately \$170,000 will be used for building purposes.

The school board of Rockford, Ill., because of increased expenses has found it necessary to raise the high school tuition rate from \$65 to \$90. There are about 250 outside students in attendance at the high school.

The present high prices for building materials and labor have prevented the carrying out of the building program recently outlined by the school board of St. Paul, Minn. Altho \$3,000,000 have been voted toward the erection of the new buildings, it is predicted that another bond issue will be required unless the prices fall within the next two years. It is planned to continue with part of the program in the hope that conditions will improve.

Lincoln, R. I. A new school building of the community type is planned as a memorial to the soldiers, sailors and marines who participated in the world war.

The tax rate for Columbus, O., has been fixed at \$1.67, which will yield within \$35,000 of what will be needed for the maintenance of the schools.

The citizens of Munhall, Pa., by a vote of two to one, have carried a bond issue providing for the erection of new buildings to the amount of \$300,000.

Textbooks in the state of Indiana will cost more than in former years. The 1919 adoptions increased the cost to \$9.90, whereas in 1918 the cost increased to \$7.62.

(Concluded on Page 84)

PERSONAL NEWS of SUPERINTENDENTS

BUSY SUPERINTENDENTS.

A reorganization of the Department of Reference and Research of the Cleveland board of education has been effected. A division of school housing, equipment and supplies has been created with Mr. Frank P. Whitney in charge. The Reference and Research work will be continued under the direction of Mr. J. B. Welles, who has been made acting director.

Under the direction of Supt. A. H. Hughey, all school principals in El Paso, Tex., will work ten months in every year. The principals will begin work two weeks before school opens and work two weeks after closing time. The change has been made in order that everything may be ready for the opening of classes and that all business may be properly completed after the closing of sessions.

The schools of Iron River, Mich., opened with a complete reorganization of classes. The schools have been organized on the six-three-three plan, with senior and junior high schools. In the high school the class sessions will be one hour in length.

The General Education Board of New York City has appropriated \$16,000 for the use of the National Committee on Mathematical Requirements for the purpose of undertaking a study looking to improvements in the mathematical curriculum of the secondary schools of the country. The study has been undertaken to meet the criticisms of mathematicians and educators, who have found fault with high school mathematics on the ground that much of the material is of little practical value and that the curriculum takes too little account of modern developments in the science.

The National Committee includes in its membership a number of college and university men, namely, Prof. Crathorne of the University of Illinois; Prof. Moore of Cincinnati; Prof. Smith, Columbia University; Prof. Tyler of the Massachusetts Institute of Technology, Prof. Moore, University of Chicago, and Prof. Young of Dartmouth College.

The secondary representatives are Miss Blair, Horace Mann School, New York; Prof. Evans, Charlestown high school, Boston; Profs. Fobert and Crane, Technical High School, Chicago, and Prof. Schorling, Lincoln School, New York.

Mr. H. R. Pestalozzi, supervisor of school attendance of the Milwaukee schools, has recommended a new system of census taking to bring the census up to a modern standard and to provide information of a more practical nature. In the past the census has been of little value to the school authorities because of the growth of the city and the inability of the old system to meet the increased demands and opportunities.

Under the new system, Mr. Pestalozzi recommends that the census be taken by school districts, one school district to form a unit; the teachers under the direction of the principal and with the assistance of the attendance department, are to be the census takers and the names and conditions of the family are to be tabulated and kept on file. The information which is to be collected and tabulated will be as follows:

1. Name of school and location
2. Name of father and occupation
3. Name of mother, whether working, deserted, or widow.
4. Address of family
5. Number of rooms occupied by family, whether in basement, first floor or rear.
6. Whether there is a bathroom or not.
7. Names of children
8. Date of birth
9. Whether boy or girl
10. School attended
11. How many working.
12. Allments prevalent among children, such as deaf, blind, tubercular, mentally defective, epileptic, rickets, deformed.
13. New address of family in case of removals.
14. Cards are to be filed in alphabetical order and by street number, the colors to be different to easily distinguish one from the other.

It is proposed that the census takers be paid at the rate of three cents per name, making a wage of from \$3 to \$3.50 per day. The general

(Concluded on Page 62)

VICTROLA

Have you thought of using MUSIC IN and AS EDUCATION?

It secures:

Attention Interest Participation Expression

THROUGH

Sense Perception
Emotional Response
Mental Discipline

Information
Instruction
Analysis

STIMULATING

Imagination
Discrimination
Selection
Correlation
Association

Concentration
Interpretation
Appreciation
Assimilation
Composition

RESIDUUM:

Knowledge Culture Poise Power

Fully possible only with

"The Victor in the Schools"

For full information, write

Educational Department
Victor Talking Machine Co.
Camden, N. J.



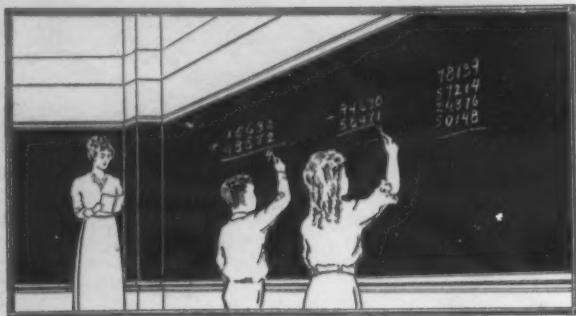
Victrola XXV, \$115
especially manufactured
for School use

When the Victrola is not in use,
the horn can be placed under the
instrument safe and secure from
danger, and the cabinet can be
locked to protect it from dust and
promiscuous use by irresponsible
people.

ALBION QUARRY NATURAL SLATE BLACKBOARDS

Are Black and stay Black. The only PERFECT writing surface.

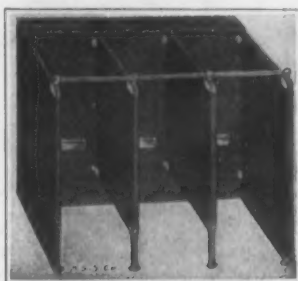
Sample and Booklet sent on request



The "KEENAN KIND" Sanitary Slate Fixtures provide perfect Sanitation and Ventilation.



B-11 1/2 S-Urinal



B-26-Closet

Large Illustrated Catalog for the asking

KEENAN STRUCTURAL SLATE COMPANY, Inc.

First National Bank Bldg.,

BANGOR, PA.

BUYING WITHOUT REGRETS

The "law of compensation" is relentless.

"Nothing for Nothing" applies in every realm of effort. But the man who makes an unwise purchase buys something that—like a deficit, is less than nothing; for it requires additional outlay in later years.

NATURAL SLATE BLACKBOARDS

from our quarries represent the acme of economy and educational efficiency. They require no upkeep, while artificial boards must be resurfaced, repaired and replaced regularly. In comparison, the word "economy" is defined in its truest sense. Slate being non-porous does not absorb anything, so cannot disintegrate. It is finished with a beautiful, velvet smooth surface that does not become gray with age or use; that makes writing a pleasure and reading a relief to the eyes of the students and teachers. That is why our Natural Slate Blackboards combine the utmost efficiency with the utmost of economy.

These are but a few of the advantages. Before you spend a dollar for Blackboards, you should read our book "How to Judge, Specify and Install Blackboards." Send for it today.

Penna. Structural Slate Co.

Worth Building

Easton, Penna.

(Concluded from Page 60)

supervision of the work is to be under the direction of the secretary of the board or the Supervisor of attendance.

In designating the territory of the census takers it is necessary to make allotments according to the number of teachers and principals who volunteer. About two or three blocks would be given where all the faculty works and about six blocks to each person where only a portion of the school staff responds. Approximately four Saturdays would be required to complete the work.

The schools of Cherokee, Kans., have cooperated with the State College for Teachers in the operation of a plan to build up the work of the lower grades. Under the new plan, the primary supervisor has been made an expert in primary work with the responsibility for the organization and planning of the lower grade work. Six senior students will act as the supervisor's assistants in assisting pupils who have fallen behind in classwork. Lessons will be given by the senior students under the supervision of the director.

The report of the survey made by Mr. James H. Van Sickle for the schools of Lowell, Mass., shows that the local school system is in many points behind the times and that a number of changes will be required to bring it up to the standard. The report severely criticizes the inadequate facilities in the schools and characterizes the facilities at the high school as little beyond the kind of secondary education in vogue thirty years ago; it criticizes the school board for the lack of system in the executive management of the schools and recommends the institution of junior high schools and the abolishment of the ninth grade; it commends the departmental organization of the high school and the system of physical training in grammar schools; and recommends the formation of special classes for backward children and a fixed schedule for elementary schools.

In condemning the system of administration, Mr. Van Sickle points out that the superintendent has not the authority necessary to enable him to accomplish the best results. Apparently the chairman and other members usurp the

executive functions which properly belong to the superintendent's office. Mr. Van Sickle shows that the better policy is to insist that executive duties be performed by the superintendent and when he fails to perform these duties satisfactorily, the board should effect his removal.

Other recommendations include the employment of a medical supervisor and the establishment of classes for over-age and mentally defective pupils. The report shows that the survey has been undertaken in a spirit of helpfulness and it is evident that the school authorities will shortly take steps to remove the deficiencies indicated by Mr. Van Sickle.

The course of study of the Weir high school at Weirton, W. Va., has been broadened in scope with the addition of chemistry, industrial and current history, domestic science, physical education, economics and physical geography. The new course was arranged by Principal L. M. Stoops who was responsible for its successful operation.

A six-year high school has been put in operation in the Walnut Hills high school, Cincinnati, with the opening of schools for the fall term. The students who will enter upon a six-year course, have been drawn from the sixth, seventh and eighth grades of the respective grade schools. The new course aims to build up and maintain a public high school which will be as good as any private college preparatory school or academy in the character and variety of its courses, and which will make it unnecessary for a parent to send a boy or girl out of the city for an education. It is intended to demonstrate that no private school can surpass a public high school in intensive college preparation along liberal and classical lines, with the subjects taught equally well and with music, art, physical education and home making taught as an essential part of the education.

Supt. Frank Cody of Detroit and his associates in charge of the supervision of the city schools have recommended to the board of education the rearrangement of the school system on the six-three-three plan. They propose that the building policy of the board be based on this reorganization of the schools and that in the future three types of buildings be erected.

(a) Large elementary schoolhouses for grades one to six inclusive, fitted with auditoriums and gymnasiums and equipped for classwork on the platoon plan. Departmentalization is to be worked out in the fifth and sixth grades.

(b) Intermediate schools to meet the needs of the children between the ages of 12 and 16, comprising those in grades seven, eight and nine.

(c) High schools which are to include the three final years. No buildings are contemplated at present for senior high school purposes. The committee of superintendents holds that the platoon and intermediate types of schools have amply justified their value. They predict that the gap between the high school and the elementary will be bridged, that individual needs of children will be better met and that the period of education of many who would drop out under the traditional form of organization, will be prolonged.

The board of education of Minneapolis has proposed a change in the salary payment plan for assistant superintendents from a ten-month to a twelve-month basis. The board has approved a recommendation of Supt. B. B. Jackson for the employment of the four assistant superintendents and the office superintendent on a ten-month basis for the present year at the same salary as last year.

Rules defining the powers and duties of the deputy superintendent and assistant superintendents of schools of Detroit, under the new administrative system, have been adopted.

The Detroit board of education has adopted rules which define the powers and duties of the deputy superintendent and assistant superintendents of schools under the new administrative program. The office of deputy superintendent has been created under Mr. Charles L. Spain, who will have general charge of the high schools, intermediate schools and platoon schools, and the supervision of assignments and transfers in elementary, intermediate and high schools. He will also have charge of the evening high schools and summer high schools.

The school board of Lowell, Mass., has taken steps looking toward the incorporation of a number of the recommendations made by Supt.

(Concluded on Page 64)

"There's a fire at Mary's School!"

No use to 'phone! Try to keep calm until we can find out whether Mary has escaped.

This is happening in some city, on an average, each day or two during the school year. Read about the cause and the remedy below.



Suppose it was your girl?

NOT long ago there was a fire in a business college in the heart of the business district of a Pennsylvania city. Five hundred girls escaped; but—

Three were injured—

Seven were overcome by smoke—

Five hundred mothers are now afraid to trust their daughters in such a building.

Are you allowing that sweet young daughter of yours, or the son who will soon be able to help Dad in his business, to spend their long school hours in a building that looks all right, but is no more than a deadly fire trap?

All over the country, in large cities and little villages, thousands upon thousands of boys and girls go to school in such dangerous buildings.

Now, since children are compelled by law to go to school, common humanity demands that their lives be safeguarded against fire.

Fire drills?—Yes. Fire escapes? Of course. But if the flames spread so quickly as to cut off windows and stairways, all the fire drills and fire escapes in the world

will not bring back one of the pitiful little victims of official negligence. Fire never does the expected thing. The only thing to do is to stop the first tiny flicker of flame.

With Grinnell Automatic Sprinklers if a fire starts in a basement, or anywhere else, it will be kept right where it starts and be extinguished quickly. *When the fire starts the water starts.*

Men have protected some five billion dollars of their business property from fire by the use of automatic sprinklers.

Meanwhile our wonderful humanitarian institutions and our fine schools continue to burn, criminally jeopardizing thousands of lives.

With a one cent post card you might save lives. Who knows? Should you hesitate to send for a free booklet that tells just what to do?

Read "*Fire Tragedies and Their Remedy*"

If you feel too indifferent to send for this free booklet telling what to do, what right have you to blame others when a horrible calamity occurs in your town? Think of your schools and write today, now, for this intensely interesting booklet. Address General Fire Extinguisher Company, 291 West Exchange Street, Providence, R. I.



GRINNELL

AUTOMATIC SPRINKLER SYSTEM

When the fire starts the water starts



DAHLSTROM

METALLIC DOORS AND TRIM

COMPLETE THE FIREPROOF BUILDING

Fire Drills or Fire Proof Doors?

It has been estimated that for every two new schools erected each year one is destroyed by fire. In 1917 there were 2,578 school fires with property destroyed totaling \$4,058,562. How much longer are you going to consider dollars more valuable than children?

Dahlstrom Metallic Doors and trim complete the fireproofing of a school building that is otherwise fireproof, making each room an isolated unit from which fire cannot spread.

Dahlstrom products for schools include corridor, stair and elevator doors, fire escape doors, door and window frames, trim, corridor lights, lavatory partitions, smoke screens and plaster bead moulding.

Door and Window Frames

Prices compare favorably with wood frames figured by the finished installation and can be used with any kind of doors or sash. They have the added advantage of making the building more fireproof and immeasurably more sanitary.

DAHLSTROM METALLIC DOOR CO.

52 Blackstone Ave., Jamestown, N. Y.

New York Office,
130 E. 15th St.

Chicago Office,
19 S. LaSalle St.

Branch Offices in all Principal Cities.

(Concluded from Page 62)

J. H. Van Sickle in his survey of the schools. The board, as its first action, has instructed Supt. Malloy to devise a plan of reorganization for the school system along the six-three-three plan. The change is intended to bridge the gap between the grades and high school and to prevent the mortality which usually occurs at this time.

Asst. Supt. Oliver G. Frederick will supervise elementary schools and will have control of the investigation and examination of elementary textbooks.

Supervision of the preparation of the building program and the annual school budget, together with the control of all elementary schools east of Woodward Avenue, has been delegated to Asst. Supt. P. C. Packer.

Under the new division of administrative work, a closer cooperation between the board, superintendent, deputy and assistants has been effected.

Anderson, Ind. The departmental system of organization has been extended to three additional schools, making five in which the system has been introduced. The total enrollment for the fall term reached 4,464, or about 234 over that of last year.

Wichita, Kans. A six-hour day has been adopted for the schools this year, with sessions beginning at 8:30 A. M. and closing at 3:05 P. M. The change has been made in compliance with a state law.

The board of education of Frankfort, Ky., has been advised by Attorney General Morris that six hours of actual work in the classroom constitute a legal school day. The single session day of less than six hours does not comply with the statutory requirements, in the opinion of Attorney Morris.

With the opening of the fall term in September, the work-study-play-plan was introduced at the Rozell School in Memphis, Tenn. The plan was recommended by experts of the government as a means of relief from congestion and will involve an initial cost of \$500 for the single

building and a total cost of \$2,501,000 for the entire school plant.

Under the plan as adopted for the Rozell School, the school hours will be increased from six to seven and a rearranged program will provide accommodations for a total of 1,100 students.

The Indiana State Department of Public Instruction has issued in booklet form rules and regulations established by the last Indiana legislature for junior high schools. The rules were drawn up by a committee composed of L. N. Hines, State superintendent of public instruction; E. U. Graff, superintendent of schools in Indianapolis; J. W. Holton, superintendent of schools at Shelbyville; C. V. Peterson, superintendent in Tippecanoe County; H. G. Childs, a professor at Indiana University; O. H. Williams, now State superintendent of teachers' training courses, and Clifford Funderburg, superintendent of schools in Huntington county.

Winona, Minn. Supt. J. V. Voorhees has recommended the lengthening of the school day to give the teachers more time in which to take care of the additional subjects of the curriculum. Supt. Voorhees believes that a longer school day is an important innovation because it places the school system in position to handle its additional work more satisfactorily.

Windsor, Ont., Can. The board has created the position of assistant principal as a means of obtaining the best results from the teaching staff. The assistant principal is expected to relieve the principal of teaching work, permitting the latter to devote more time to organization and supervision.

An increase of 1,003 in the total enrollment is reported for the public schools of Canton, O. In the McKinley High School alone, the enrollment reached 1,080 students.

The survey of the physical, educational and sanitary aspects of the Lexington, Ky., schools which was begun recently by a committee of survey experts, has been completed and will shortly be issued in the form of a report. The survey

work was conducted by Dr. Frank F. Bunker, Mrs. Alice B. Fernandez, and Dr. F. B. Dresslar.

The educational committee of the Columbus (Ohio) board of education has ordered that temporary maps be used in the study of geography until the new geographies are available. New geographies will not be forthcoming until conditions in Europe become so settled that hard and fast lines can be effected between the different countries.

Business houses of all kinds long ago realized that theory and practice frequently conflict. A sales manager at his desk, it was discovered, might evolve business plans which looked well on paper, but which, as a matter of fact, might result in a loss of business, rather than an increase. The same is true of plans with regard to factory production, the workers in many cases, being handicapped, rather than helped, by the plans drawn up on paper for larger or better production. The remedy was to get the ideas of the workers themselves, or the men in the field, before adopting any plan the success of which might be problematical.

This system has been adopted by the Indianapolis school administration, the experience of which has been identical with that of the business concerns mentioned. One of the biggest problems now before the schools is that of making its curriculum of the maximum benefit. Scores of subjects which might be studied to advantage in the schools have been suggested in the rearrangement of the courses which is planned.

The subjects to be studied and methods of studying them will be left largely to the teachers themselves. Committees have been appointed from the ranks of instructors to consider every subject which might improve the education of a student. The recommendations of these committees will not be final, of course, but it is believed that the reports to be submitted by the folk who actually come into contact with the child, will be infinitely more valuable in determining the extent of reforms in the present system than an academic revision would prove.



For Large Universities or Small Schools

No matter whether the school you are interested in takes on the dignity of a nationally known university or is only a small school locally known, proper ventilation must be considered in either case.

Thru the great interest which has been taken the last few years in school ventilation and the definite fact that it is as important as any subject you can consider, universities and schools are now making the proper preparations for a system of ventilation that will conserve the health of the pupils and teachers and make better studying conditions possible.

Gillman Hall at Johns Hopkins University is one of the most prominent school structures famous for its ventilating equipment. It is here that "Sirocco" products are used to advantage, the same as is the case in thousands of other educational buildings where health and high grade teaching go hand in hand.

If you are making any changes in your school equipment and have considered the question of better ventilation, you will be interested in our book, "Three Questions Concerning School Ventilation," which contains a great amount of information gathered by a prominent authority on school work. This book will be sent you upon application without further obligation on your part.

AMERICAN BLOWER COMPANY DETROIT, MICH.

Branches in All Large Cities

Canadian Sirocco Company, Ltd.
Windsor, Ont.



Gillman Hall, Johns Hopkins University, Baltimore, Md. Parker, Thomas & Rice, Baltimore, Md., Architects

DURAND STEEL LOCKERS

TO say "Durand" is just another way of describing the highest standard in steel locker manufacture.

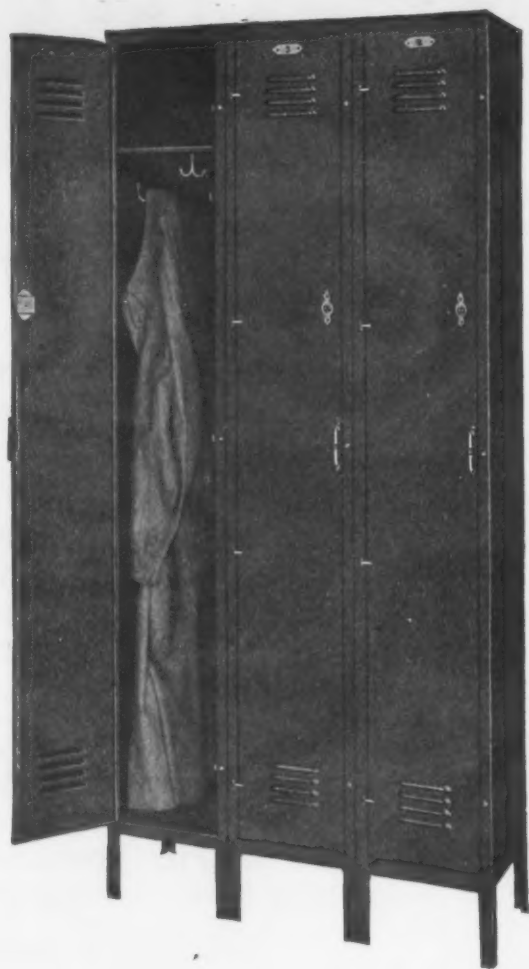
In every line of manufacture there is one name that has won enviable distinction. In purchasing steel lockers, steel shelving or bins, "Durand" is the mark of generally acknowledged excellence.

Consult with us regarding your requirements in connection with Durand Steel Lockers or Shelving. Catalogue of either on application.

DURAND STEEL LOCKER COMPANY

1521 Ft. Dearborn Bank Building
Chicago

921 Vanderbilt Building
New York City



PERSONAL NEWS of SCHOOL OFFICIALS

Mr. Frank P. Whitney has been elected director of the department of housing, equipment and supplies of the Cleveland board of education. Mr. E. T. Cockrell succeeds Mr. Whitney as principal of the Collinwood Junior High School.

Mr. Charles H. Lake of the East Technical High School, Cleveland, has been made assistant superintendent, to succeed F. E. Clerk.

Mr. Albert J. Lobb, lecturer in political science and formerly an instructor in economics, civics and commercial law, has been appointed assistant superintendent of schools of Minneapolis. Mr. Lobb will have charge of the newly created department of school finance and also of the accounting system of the board.

Mr. George Gallagher, president of the board of education at San Francisco, Cal., has resigned to accept a position with a private business firm.

Dr. Henry E. Kock of Woodward High School, Cincinnati, O., was recently appointed District Supervisor of the State Department of Health. During the summer he was active in organizing health boards in the various counties in the southwestern part of Ohio.

Mr. Charles E. Dodge has resigned as clerk of the board at Great Bend, Kans., after a service of 24 years. During Mr. Dodge's long incumbency, the teaching force at Great Bend increased from twelve to forty instructors and the school plant has been entirely replaced by new and up-to-date buildings.

Mr. L. U. Grant, secretary of the school board at Bay City, Mich., during the past twelve years has resigned.

Mr. H. B. Aurand has been elected president of the board of education at Bay City, Mich., to succeed the late Mr. Krapohl.

Miss Mabel I. Otis, who has been connected with the educational work of the U. S. Army in France, has just been appointed Supervisor of Community Center Work in the extension department of the schools of Cleveland. Miss Otis during the war was stationed at the embarkation centers and in the army camps of France where she had charge of the army schools for soldiers.

Mr. B. D. Quarrie has been elected president of the school board of Cleveland, the term of service to run until January, 1920.

Scottsbluff, Neb. Mr. W. O. French has been appointed as secretary and business manager of the schools. Mr. French in addition to the clerical work, will have charge of the purchasing of supplies, the maintenance of buildings and the supervision of janitorial work.

Mr. H. A. Bone, for the past three years principal of the high school at Sioux City, Ia., has resigned to accept a position in the Illinois Normal University at Normal. Mr. Bone will have charge of the newly created country school department which seeks to train teachers for work in rural communities and to provide community advisors for rural schools of Central Illinois.

PERSONAL NEWS OF SUPERINTENDENTS.

Duluth, Minn. The position of assistant superintendent of schools has been created with the appointment of Mr. James A. Starkweather. Mr. Starkweather will have charge of the fifth and sixth grades, the junior high schools and the vocational schools.

Supt. F. E. Lurton of East Grand Forks, Minn., has accepted a position as an instructor for the Federal Board of Vocational Education. Mr. Lurton will be engaged in rehabilitation work for wounded soldiers and sailors and will make his headquarters at Minneapolis.

Mr. John G. Walvoord has been appointed superintendent of schools at Sheboygan, Wis., to succeed W. P. Roseman who is engaged in government work.

Supt. Darrell Joyce of Hamilton, O., has been given an increase of \$1,000 in salary.

Mr. M. C. Hayes of Princeton, Minn., has been

elected superintendent of schools at East Grand Forks, to succeed F. E. Lurton.

Mr. Earl Van Horn of Kirksville, Mo., has been elected superintendent of schools at Trenton, to succeed E. S. Briggs. Mr. Briggs has accepted the superintendency at Okmulgee, Okla.

Mr. M. M. Williams of Paducah, Ky., has been elected superintendent of schools of Grand View Heights, O., to succeed C. A. Waltz, resigned.

Mr. Earl A. Bixler of Grand Forks, N. D., has accepted the superintendency of the training school of the South Dakota Normal School, at Madison.

Mr. J. S. McCann of Groveland, Mass., has been elected superintendent of schools at Orange.

Mr. C. O. Thompson has resigned from the superintendency at Salem, Ind.

Mr. Egbert E. McNary, formerly principal of the Springfield Vocational School, has not been released from service with the shipping board and will be retained in his present work indefinitely.

The salary of Supt. C. R. Reed of Rockford, Ill., has been raised to \$5,500.

Mr. B. F. Ketchum of Farmington, Ia., has been appointed a member of the Iowa State Board of Education, to succeed the late H. E. Eicher.

Mr. Bruce Francis of Minot, S. D., has accepted the superintendency at Huron.

The salary of Supt. J. C. Anthony of Melrose, Mass., has been raised to \$3,500.

Mr. O. B. Anderson of Chicago, Ill., has been elected superintendent of schools at Benson, Minn.

Mr. Jesse Tombaugh of North Manchester, Ind., has been elected superintendent of schools at Akron.

District Supt. H. S. Crane of Chicago has been promoted from the principalship of the Champlain School. Former Assistant Supt. E. E. Cole has been made first assistant superintendent of schools.

Mr. Peyton C. Irving, Jr., of Dallas, Tex., has been appointed State High School Supervisor.

Mr. J. L. McFarland of Akron, O., who has been reinstated as principal of the Glover School,

(Concluded on Page 69)

Records for Schools

The Public Schools are the Melting-Pot of the Nation. Music is the one great inspiring force in our Schools today which makes for pure Americanism. The Columbia Grafonola and Columbia Records bring music to the Schools in a way nothing else can.

MARCHES

The "Assembly" March (Hager).....	Prince's Band	A-3042
Battleship Connecticut March (Fulton).....	Prince's Band	10 in. 85c.
Flashing Glory March (Martin).....	Prince's Band	A-7520
The Life-Guard March (Martin).....	Prince's Band	12 in. 1.25
Spirit of Victory March (Cogswell).....	Prince's Band	A-7535
Connecticut March (Nassann).....	Prince's Band	12 in. 1.25

FOLK DANCES

St. Patrick's Day (Irish Jig).....	Prince's Band	A-3000
Highland Fling (Scotch Dance).....	Prince's Band	10 in. 85c.
Tantoli (Swedish Dance).....	Prince's Band	A-3054
Hornpipe (English Dance).....	Prince's Band	10 in. 85c.
Pop Goes the Weasel (American Country Dance).....	Prince's Band	A-3078
Jolly Is the Miller (American Country Dance).....	Prince's Band	10 in. 85c.

FOLK SONGS

Old Black Joe..Barbara Maurel and Columbia Stellar Quartette	A-6091
Carry Me Back to Old Virginny..Barbara Maurel and Columbia Stellar Quartette	12 in. 1.50
Drink to Me Only with Thine Eyes.....Oscar Seagle	A-6071
Loch Lomond (Old Scottish Melody).....Oscar Seagle	12 in. 1.50
Old Dan Tucker.....Bentley Ball	A-3087
The Little Old Log Cabin in the Lane.....Bentley Ball	10 in. 85c.

PHYSICAL DRILLS

Drill Music, Set No. 1 (Clarke).....	Prince's Band	A-3073
Drill Music, Set No. 2 (Clarke).....	Prince's Band	10 in. 85c.
High School Cadets March.....	Prince's Band	A-7517
March Lorraine.....	Prince's Band	12 in. 1.25
Hansel and Gretel (Singing Game).....	Prince's Band	A-3080
Sandal Polka and Swiss May Dance (Singing Games).....		10 in. 85c.

PENMANSHIP

Rythmic Penmanship—3-part time.....	J. Albert Kirby	A-7530
Rhythmic Penmanship—4-part time.....	J. Albert Kirby	12 in. 1.25
Washington Post March.....	Prince's Band	A-7515
Petits Pierrots March.....	Prince's Band	12 in. 1.25
Beautiful Ohio (Waltz).....	Prince's Orchestra	A-6081
My Belgian Rose (Medley Waltz).....	Prince's Orchestra	12 in. 1.25



Columbia School Grafonola with Pushmobile

Doors fitted with lock and key.
Seven shelves for records.
Reproducer, winding crank and turntable may be locked in pushmobile.
Either Oak or Mahogany.

These records are but a few of the many to be found in our new Educational Catalog, "The Grafonola in the Class Room," a copy of which will be sent free upon request. The catalog offers a wealth of material from Kindergarten to High School, carefully selected and graded.

Any Columbia Dealer will gladly place a Grafonola and Pushmobile with a number of Educational Records in your School on trial, without cost or obligation to you, so that you may prove, thru your own satisfaction, what great service Columbia products may be in your school.

Send the coupon for Educational Literature.

EDUCATIONAL DEPARTMENT

Columbia Graphophone Company

Woolworth Building, New York City

London Factory: 102 Clerkenwell Road, E. C.

APPRECIATION

Danse Macabre (St. Saëns).....	Prince's Orchestra	A-1836
Dance of the Goblins (Recker-Lorraine)....	Prince's Orchestra	10 in. 85c.
Celeste Aida (Radiant Aida).....	Hipolito Lazaro	48762
		12 in. 1.50
Fifth Symphony (Beethoven) Andante. Part I....	Philharmonic Orchestra of New York	A-5954
		12 in. 1.50
Fifth Symphony (Beethoven) Andante. Part II....	Philharmonic Orchestra of New York	

CORRELATION

Children's Chorus.....	Seneca Indians	A-3057
Funeral Chant.....	Seneca Indians	10 in. 85c.
"1812 Overture" Part I (Tschaikowsky).....	Regimental Band of H. M. Grenadier Guards	A-5874
		12 in. 1.25
"1812 Overture" Part II (Tschaikowsky).....	Regimental Band of H. M. Grenadier Guards	
Blue Bells of Scotland.....	Margaret Keyes	A-5351
The Hills o' Skye (Harris).....	Margaret Keyes	12 in. 1.25

MUSICAL MEASURES

Records Based on Psychological Tests for Pitch, Intensity, Time, Consonance, and Tonal Memory. By Prof. C. E. Seashore, State University of Iowa. Numbers A-7536, A-7537, A-7538, A-7539, A-7540... \$7.50 per set

RECITATIONS

Johnny Chuck Finds the Best Thing in the World.....	Thornton W. Burgess	A-7524
Joy of the Beautiful Pine.....	Thornton W. Burgess	12 in. 1.25
The Blue and the Gray.....	Harry E. Humphrey	A-3044
Lincoln's Gettysburg Address.....	Harry E. Humphrey	10 in. 85c.
The Layers, On and Off (Cooke).....	Edmund Vance Cooke	A-3088
Plain Private and How Did He Die (Cooke).....	Edmund Vance Cooke	10 in. 85c.

TYPEWRITING

Father of Victory (Ganne).....	Prince's Band	A-7516
Italian Riflemen (Eilenberg).....	Prince's Band	12 in. 1.25
Liberty Songs March. Part I.....	Prince's Band	
Introducing: (1) "Oh! How I Hate to Get Up in the Morning." (2) "Tell That to the Marines." (3) "Good-bye, France.".....		A-7541
Liberty Songs March. Part II.....	Prince's Band	12 in. 1.25
Introducing: (1) "Keep the Home Fires Burning." (2) "Over There." (3) "I May Be Gone for a Long, Long Time." (4) "Pack Up Your Troubles in Your Old Kit Bag.".....		
Sharpshooters' March. (Il Bersaglieri) (Eilenberg).....	Prince's Band	A-5540
March of the Little Pierrots (Bosc).....	Prince's Band	12 in. 1.25

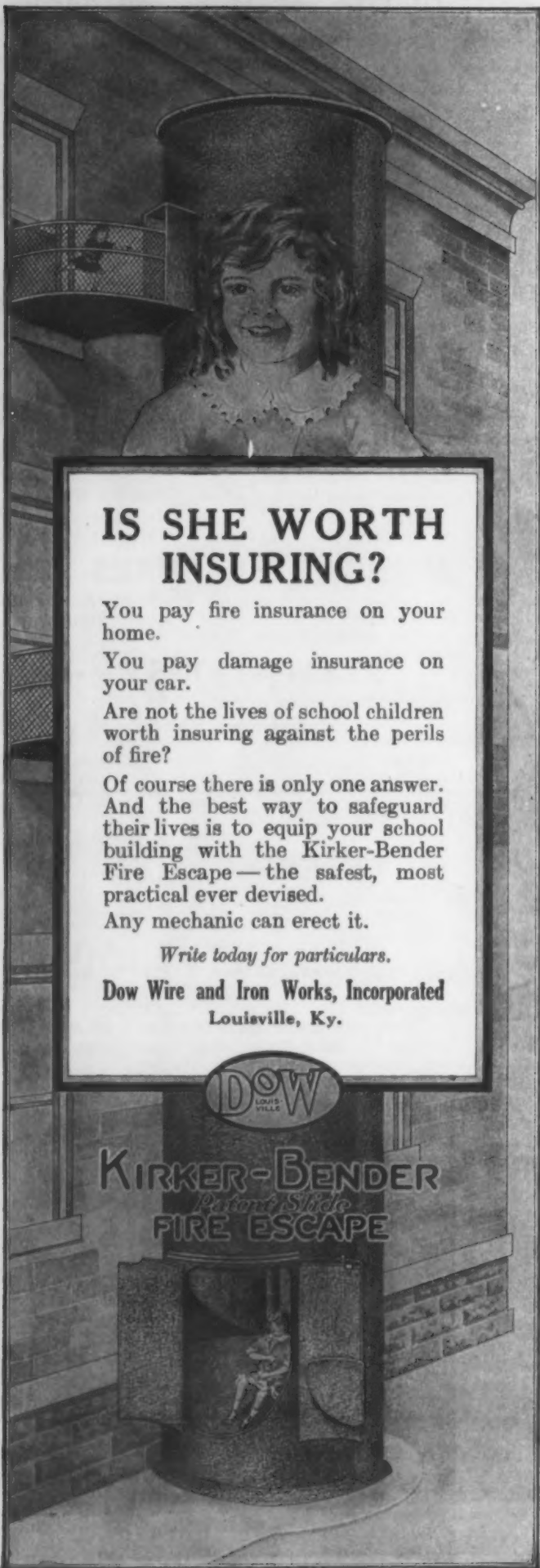


Clip this coupon and mail today.

COLUMBIA GRAPHOPHONE COMPANY
Educational Department
Woolworth Building, New York City
Please send the following literature:
(Check subject desired)

Grafonola Catalog ☐
Educational Record Catalog ☐
Musical Measurement Manual ☐

Name _____
Town _____
State _____
Grade _____ (A. J. Oct.)

IS SHE WORTH INSURING?

You pay fire insurance on your home.

You pay damage insurance on your car.

Are not the lives of school children worth insuring against the perils of fire?

Of course there is only one answer. And the best way to safeguard their lives is to equip your school building with the Kirker-Bender Fire Escape—the safest, most practical ever devised.

Any mechanic can erect it.

Write today for particulars.

Dow Wire and Iron Works, Incorporated
Louisville, Ky.

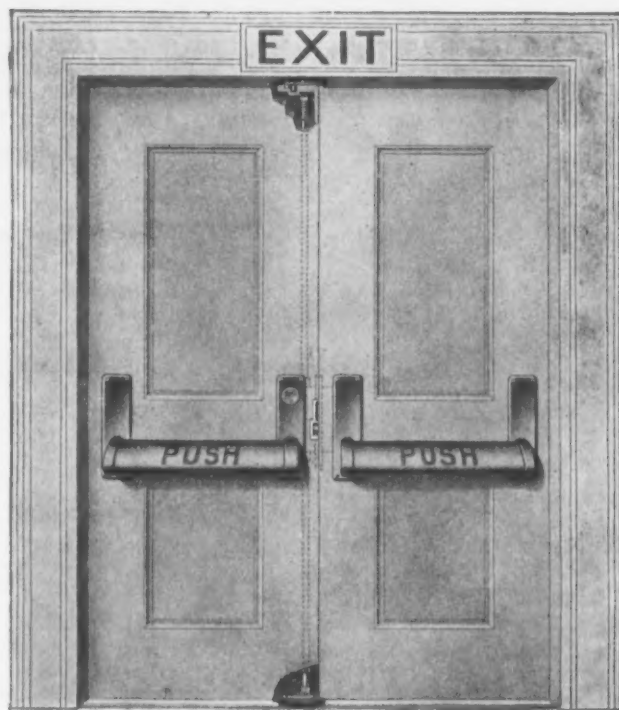
DOW LOUISVILLE

KIRKER-BENDER
Patent Slide
FIRE ESCAPE



Safety provided in every point

Quick exit is assured and the construction is such that in operating the push bar the hands or arms cannot be caught between the bar and the door.



These New

SARGENT

Reg. U. S. Pat. Off.

Fire Exit Door Bolts

are attractive in appearance, strong in construction and quick in action.

They have a wide push bar which projects only 2½ inches from the surface of the door, permitting the door to swing wide open so as not to obstruct passage through the doorway. Slight pressure on the bar at any point will release the bolts instantly. All edges and corners on the bars and brackets are carefully rounded, eliminating all possibility of wearing apparel becoming accidentally caught.

Sargent Fire Exit Door Bolts, Locks and Hardware are sold by representative dealers in all cities.

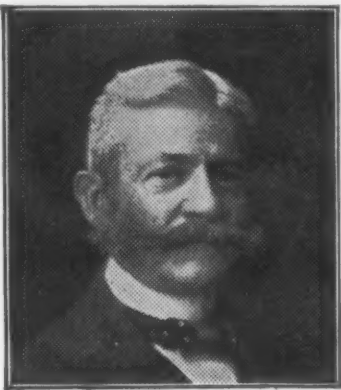
SARGENT & COMPANY, Manufacturers

New Haven, Conn.

New York

Boston

Chicago



Postpone the Replacement of Your Text Books

The easiest way to save money on text books is to postpone the buying of new ones. This you can do to a certainty by giving them the protection of

HOLDEN BOOK COVERS

Which Take All the Hard Knocks Instead of the Book

Holden Covers add from two to three years to the life of a book and leave it clean and neat to hand down to the next pupil.

Deliveries Slow If on the opening of school you find you need a few more covers, we advise ordering them at once, for shipments are vexatiously slow. And prices are likely to advance before the new year.

Holden Patent Book Cover Company

MILES C. HOLDEN, President

SPRINGFIELD, MASS.

(Concluded from Page 68)

has been given a year's leave of absence and a year's salary of \$1,800.

S. E. LeMarr of Leroy, Ill., has been elected superintendent of schools at Abingdon.

Mr. I. M. Gast, superintendent of schools at Kittanning, Pa., for a number of years, has resigned. Mr. Gast will continue his graduate work at Teachers College, Columbia University.

Dr. Mytton Maury, D. D., educator and authority on the classics, died the early part of August at St. John's Hospital, Yonkers, N. Y., at the age of 80 years. Dr. Maury was a graduate of Mt. Everett Academy and Columbia University. He was the author of the Maury geography which was long used as a textbook in the United States and England.

Mr. R. J. McMahon, superintendent of schools at Kewaunee, Wis., has been offered the principalship of the training school at the Milwaukee State Normal School. Mr. McMahon has been head of the Kewaunee schools since 1916 and is widely known in Wisconsin as a school organizer and program builder.

The salary of Supt. M. C. Potter of Milwaukee has been raised from \$7,500 to \$9,000 a year, beginning July 1, 1919.

Mr. E. B. DeGroot, a pioneer in the field of physical education and a recent arrival from active work in France with the American army, has just been appointed Scout Executive for the Los Angeles Council of the Boy Scouts of America. Mr. DeGroot comes to his new office with experience and exceptional ability to his credit. He was for eight years organizer and director of Chicago's recreation centers, was the author of the California Physical Education Law and is considered an authority on the subject the world over. He holds an honorary diploma given by the Sargent School of Physical Education and also a diploma and medal awarded by the Panama-Pacific International Exposition.

Mr. DeGroot has long been identified with Council work in various centers and was one of the first to recognize the soundness of the program and to foresee its tremendous growth in this country when it was first introduced in 1910. During the war, Mr. DeGroot was director

of athletics for the American army, where he did conspicuous work in guiding the recreational activities of millions of Yanks.

George N. Tremper of Kenosha, Wis., has been reelected for his ninth year as principal of the high school at a salary of \$2,800, an increase of \$400 over last year.

Supt. J. M. Gwinn of New Orleans, La., has returned to his duties as head of the New Orleans school system after several months spent in France as an educational instructor with the American army.

Mr. L. W. Brooks, formerly principal of the high school at Racine, Wis., has changed his position to principal of the Wichita High School.

Dr. C. A. Prosser, director of Vocational education for the Federal Board of Vocational Education, has resigned. He will resume his former position of director of Dunwoody Institute, Minneapolis, after November first.

Mr. Ralph W. Westcott of Mansfield, Mass., has accepted the superintendency at Walpole.

Mr. G. A. McFarland, assistant superintendent of public instruction of North Dakota, has resigned. Mr. McFarland has accepted the superintendency of the city schools at Bismarck.

Supt. J. C. Anthony of Melrose, Mass., who received an offer of a position in another city, has been induced to remain in consideration of an increase in the yearly salary.

Mr. John J. Mahoney, principal of the State Normal School at Lowell, Mass., has been given a year's leave of absence to take up the duties of state supervisor of Americanization work. Mr. Clarence M. Weed will be acting principal during Mr. Mahoney's absence.

Mr. C. E. Campton has been elected superintendent of schools at Two Harbors, Minn.

Mr. E. A. Elliott, of Waverly, Kans., has accepted the superintendency at Fredonia, at a salary of \$2,200 a year.

Mr. Oscar C. Gallagher has been elected superintendent of schools at Brookline, Mass., to succeed Mr. George I. Aldrich resigned. Mr. Gallagher entered upon his duties on October first.

Supt. C. V. Frazier of Williamsburg, Ia., has been reelected and his salary raised to \$2,500.

Mr. Verne E. Chatelaine has been appointed superintendent of schools at Lander, Wyo.

E. L. Porter of Upper Sandusky, O., has been elected superintendent of schools at Mt. Gilead.

Mr. John R. Patterson of Xenia, O., has been elected superintendent of schools at Bucyrus, for a three-year term. The salary will be \$2,900, \$3,100 and \$3,300 respectively.

Mr. H. M. Elcher, a member of the state board of education of Iowa, died the latter part of July after a long illness. Mr. Elcher was a practicing lawyer since 1883.

Mr. J. F. Lambert of Hawkinsville, Ga., has been elected superintendent of schools at Sandersville.

Mr. James M. Tilley, assistant superintendent of schools of Terre Haute, Ind., has been elected superintendent, to succeed C. J. Waits.

Mr. Charles H. Lake, principal of the East Technical High School of Cleveland, O., has been made assistant superintendent of schools to succeed Mr. H. H. Clerk resigned. Mr. Lake will have charge of high school supervision.

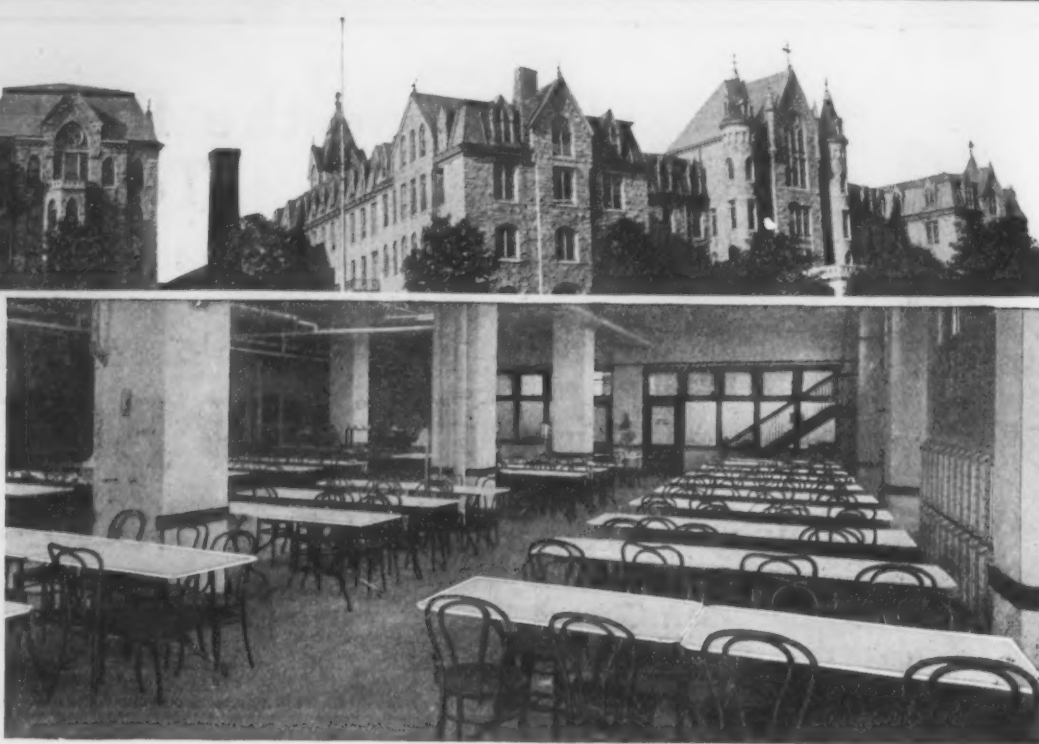
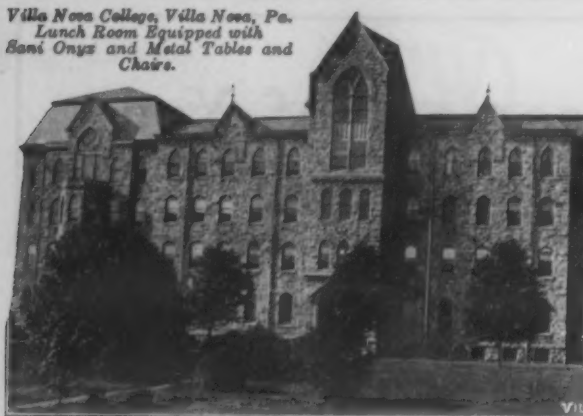
Mr. George E. Carrothers, assistant dean, has been assigned temporarily as head of the Division of Educational Extension.

Mr. H. H. Bishop of Anadarko, Okla., has been elected superintendent of schools at Stillwater for the next year. The Stillwater schools begin the new year in September with a new high school building, a larger faculty and a number of new courses.

MR. SHIELS RESIGNS.

Superintendent Albert Shiels of Los Angeles tendered his resignation as head of the school system in August and was accepted at the September meeting of the board of education. In resigning Mr. Shiels pointed out the pleasant experiences which he has had as head of the schools, in his association with the members of the board of education and with the supervisory and teaching force. His connection with the school system will cease November first. Mr. Shiels intends to devote some time in the East in making educational and social studies, and in doing research work preliminary to issuing a number of books on educational topics.

Villa Nova College, Villa Nova, Pa.
Lunch Room Equipped with
Sani Onyx and Metal Tables and
Chairs.



Leading Schools Are Now Installing Lunch Rooms

Careful studies of the effect of proper nourishment on the minds of pupils has led many of America's leading schools to install lunch rooms where good, wholesome, properly cooked food may be had at reasonable prices.

It has often been found that schools having domestic science departments can provide food to pupils at low cost and at the same time defray all domestic science department expense.

Investigate. Help the pupils prepare their minds to receive the instruction you give and at the same time reduce school operating expenses. Write for Booklet No. 1510, showing the many types of Sani Onyx and Sani Metal Tables and Chairs. Tell us how many pupils you plan to feed and send a sketch of the floor plan of space to be devoted to this department. Let our engineers help you.

CHICAGO HARDWARE FOUNDRY CO.

Main Office: NORTH CHICAGO, ILL.

New York, 168 Church Street
Chicago, 546 W. Washington Blvd.
Cleveland, 504 Sweetland Bldg.
Philadelphia, 304 Lafayette Bldg.
Detroit, 612 Hodges Bldg.
Boston, 86 High Street

Branch Offices

St. Louis, 713 Title Guaranty Bldg.
Washington, 204 Evans Bldg.
Montreal, 35 St. Nicholas Street
Minneapolis, 803 1st Nat.-Soo Line Bldg.

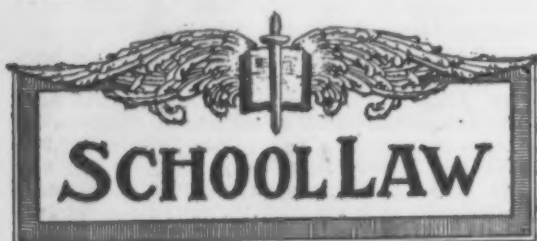
New Orleans, 206 New Orleans National Bank Bldg.
San Francisco, 240 Kialto Bldg.
Toronto, 20 Canada Permanent Bldg.
Winnipeg, Galt Bldg.
Havana, Cuba, Obrapia 46



SANI ONYX METAL



School and Industrial Lunch Room Equipment



The assistant city solicitor of Providence, R. I., has rendered an opinion to the effect that it is illegal and short-sighted to insist on the collection of a registration fee from evening school pupils. The opinion was given to the school board of Providence to adjust a controversy over the legality of a rule requiring a registration fee. The opinion points out that the public policy of the state is that the public schools shall be absolutely free and the evening schools of the several towns are by law placed under the general supervision of the state board, under which they are supported and maintained by state appropriations.

The attorney general of Texas has ruled that women are not eligible to serve on boards of education in cities of five thousand population. The opinion was given to the school board of Brenham where the members are appointed by the mayor.

A new child labor and compulsory education law went into effect in North Carolina on July first. The provisions of the law are to be enforced by a special commission composed of the commissioner of public welfare, the secretary of the state board of health and the superintendent of public instruction. Mr. E. F. Carter has been appointed as executive officer of the commission.

Under a new law passed by the Illinois legislature, and approved by the governor, treasurers of cities, villages, towns, townships, school districts and all custodians of public funds, except state officials, are required to publish annually in a newspaper, statements of their receipts and expenditures. The law aims to correct abuses which have crept into the system of handling

public moneys in Illinois. A penalty of from \$25 to \$300 is provided for any officer coming under the law who refuses, fails or neglects to make such publication, and a similar penalty is provided for any publisher who refuses, fails or neglects to obey the law.

Under a new rule passed in Ohio, all boards of education, principals of private schools and authorities in control of parochial schools, are required to display the United States flag not less than five feet in length over or within the school buildings within their control each day that schools are in session. Expenses connected with the display of the flags is to be borne by the contingent funds of the schools. Fines are provided for failure to comply with the law.

The new law recently passed by the Massachusetts legislature providing for a school fund of \$4,000,000 is in danger of being repealed if the objections of the people are effective. It is charged that the measure has been passed at the instigation of the state board for the purpose of adding to its powers and with the sole purpose of centralizing all educational power under the direction of the state authorities. There is also considerable objection to the law because it takes large sums from the larger communities for the education of less fortunate towns and districts in the state.

The Illinois legislature recently passed an amendment to the school laws under which the county superintendent is given an assistant whose duties will be to serve as truant officer and to see that the children of school age in the several counties do not violate the school laws.

The teachers' pay law recently passed by the state of Massachusetts is a puzzle to many of the school authorities. Some authorities claim that the teachers receive the increases in salary thru the automatic working of the law. Others declare that it is the duty of the school committee to determine whether the increases will be paid. The matter will be discussed and brought to a final conclusion by interpretation of the state authorities.

Three new laws will affect the schools

of Kansas this year. One requires that the American flag must be displayed during school hours, a second requires that dental inspections shall be made at the beginning of the school term, and a third fixes the entrance age of school children at six years.

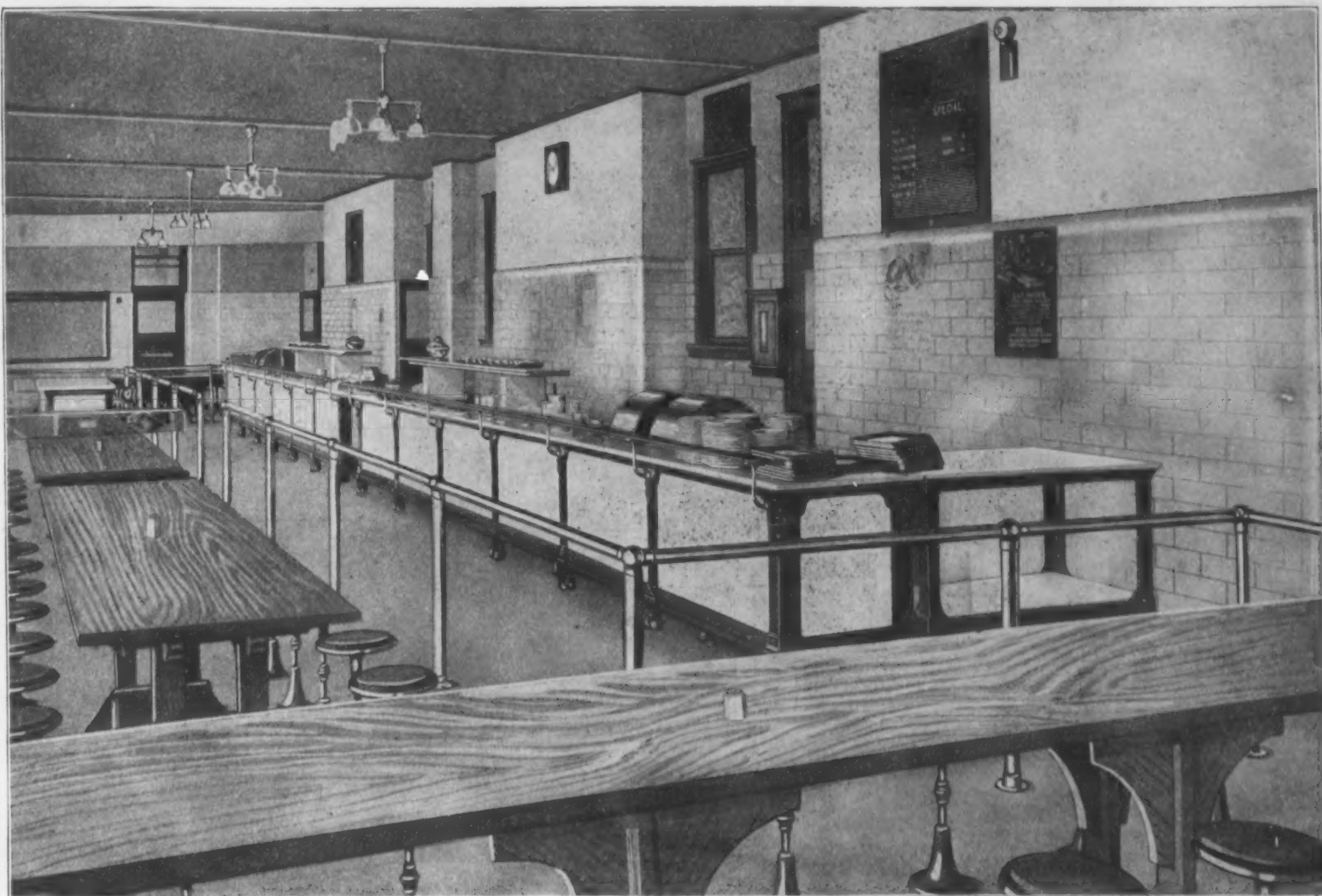
A recent ruling of city magistrate Alfred Steers of the Flatbush Court of Brooklyn, N. Y., upholds the right of a teacher to slap a pupil in the face if the child is disobedient or unruly in the classroom. The magistrate dismissed the charge of assault against Miss Frances Wilson, a teacher in Public School 42. In making the ruling, the magistrate pointed out that the teacher is in control of the classroom and that she takes the place of parent or guardian in the matter of discipline.

Attorney General Price of Ohio has rendered an opinion in which he holds that the state superintendent has full authority to prescribe standard requirements as to methods of instruction in the schools which are to receive state aid for the instruction of the blind, and also that he can direct the schools to provide such equipment as is necessary for "sight-saving" classes for the use of pupils partially blind. It is also held that boards receiving state aid for teaching the blind, may purchase textbooks with large letters as well as raised letters for teaching the blind.

It is the opinion of the attorney general that Ohio is the leading state in the promotion of sight-saving classes and that no impediment should be put in the way to aid those who have partial sight, those who are deaf, crippled or blind.

Detroit, Mich. As a basis for a scientific salary schedule for school instructors, an investigation of the living conditions of some four thousand teachers has been made. Blanks have been distributed asking information concerning the monthly cost of board, room, clothes, laundry, recreation, educational advance, church and charity, and other miscellaneous items. A further help in making the schedule has been the collection and study of salary schedules of seventeen of the large cities of the country.

Independent School District,
Davenport, Iowa



Serve Your Pupils A Wholesome Lunch



Ask for these Catalogs:

General Catalog - - Book Y 20

Lunch Room Book - Book Y 10

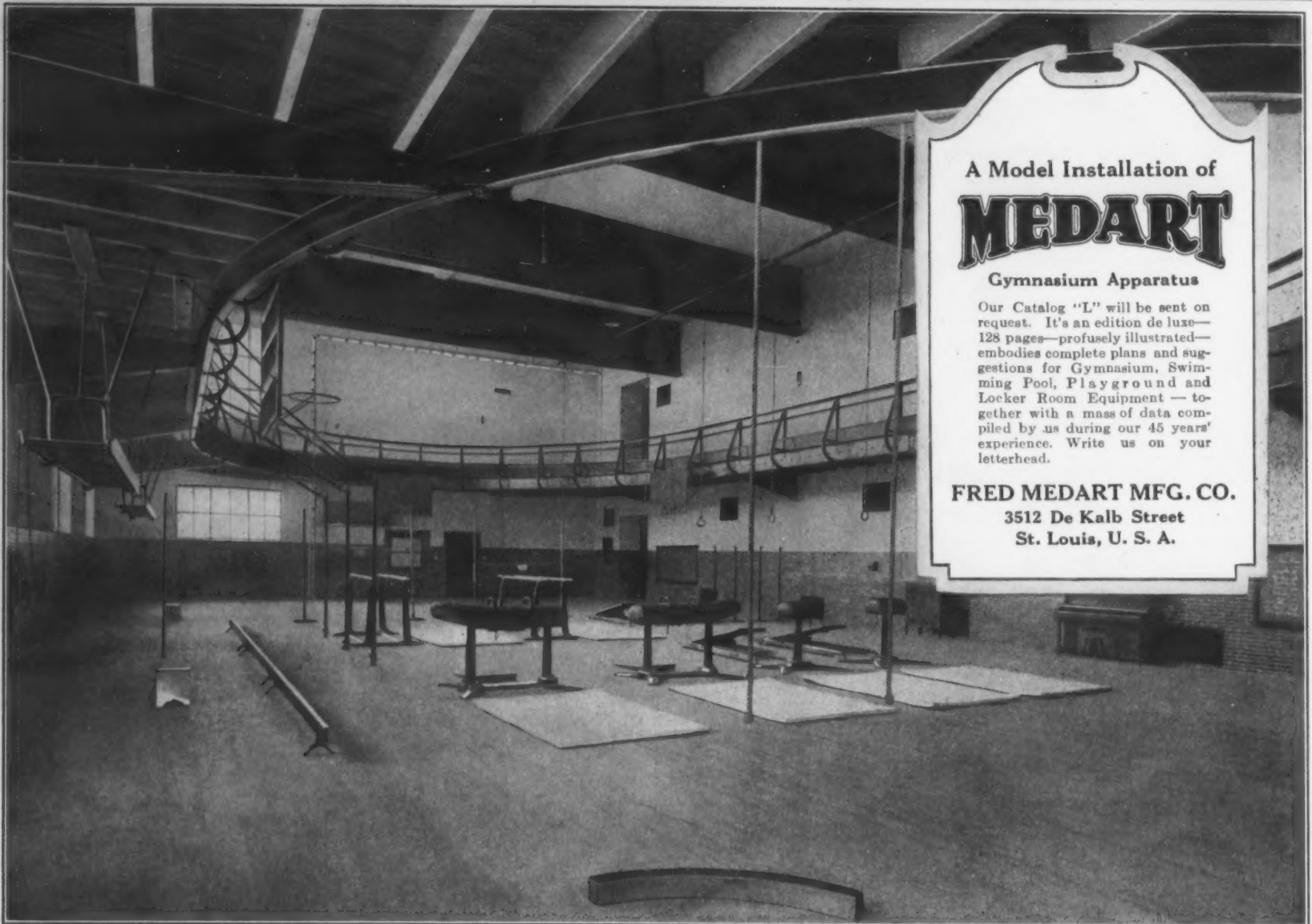
NOTE—We are headquarters for Domestic
Science Equipment. Write for information.

The advantage of the School Cafeteria is no longer a theory. It is a fact acknowledged by school authorities the country over. A scientifically planned and equipped Cafeteria will make a world of difference in the health and efficiency of the pupils and show a marked effect in increasing the scholastic standard.

Our position as headquarters for Cafeteria and Lunch Room Equipment should commend us to your consideration. Our experts will design a Cafeteria to meet your special needs or advise you on correct equipment and installation. No matter what your requirements may be, we can furnish just what you want at the price you want to pay.

ALBERT PICK & COMPANY

208-224 WEST RANDOLPH ST., CHICAGO, ILLINOIS



A Model Installation of

MEDART

Gymnasium Apparatus

Our Catalog "L" will be sent on request. It's an edition de luxe—128 pages—profusely illustrated—embodies complete plans and suggestions for Gymnasium, Swimming Pool, Playground and Locker Room Equipment—together with a mass of data compiled by us during our 45 years' experience. Write us on your letterhead.

FRED MEDART MFG. CO.

3512 De Kalb Street
St. Louis, U. S. A.

THE FUN-FUL LINE PLAYGROUND EQUIPMENT

When specifying Playground Equipment and Athletic Goods, just say

"FUN-FUL"

The line will meet your every requirement for Slides, Swings, Ocean Waves, Giant Strides, See-Saws, Outdoor Gymnasium Combinations, etc.,

AND

Basket Balls, Foot Balls, Volley Balls and Nets, Playground Balls, and all other necessary Athletic Equipment.

Uncle Sam and every one of his States use "Fun-Ful."
Write for free book today.

HILL-STANDARD CO.

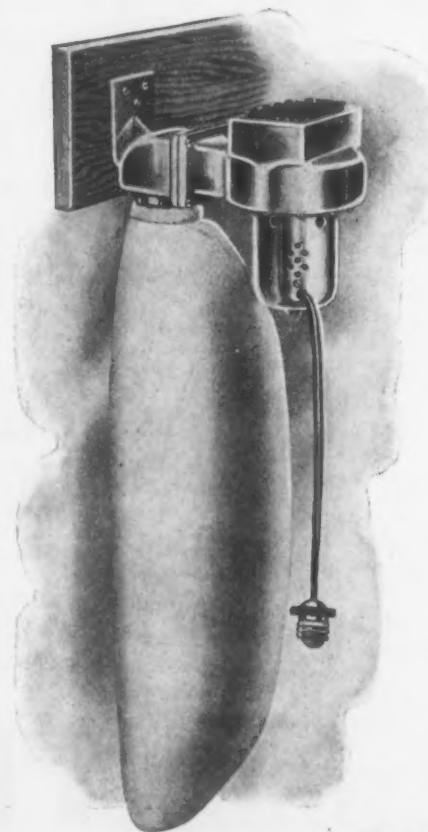
General Sales Office
Conway Bldg.
Chicago

Recreation Engineers

Factories
Anderson, Ind.
Kokomo, Ind.

THE FUN-FUL LINE PLAYGROUND EQUIPMENT

Do you know



That
Kansas City
Is the Home
Of the First
Successful

Electric
Vacuum
Blackboard
Eraser--
Cleaner--

SEE PAGE 24

For the School Room—

An absolutely accurate and durable weighing machine and measuring device—compactly built with no loose weights. **The Ideal Scale.**

SCHOOL *The* **DeLuxe** SCALES WITH MEASURING DEVICE FOR SCHOOLS.

Nowadays parents are particularly interested in the physical development of their children. Everywhere Superintendents of schools are inaugurating the plan of weighing and measuring their pupils monthly. Parents are provided with this information as a part of their child's report.

The DELUXE weighing and measuring machine is ultimate perfection in scale construction. Mechanically simple and built to endure, the DELUXE is attractively finished in oven-baked white or silver gray enamel.

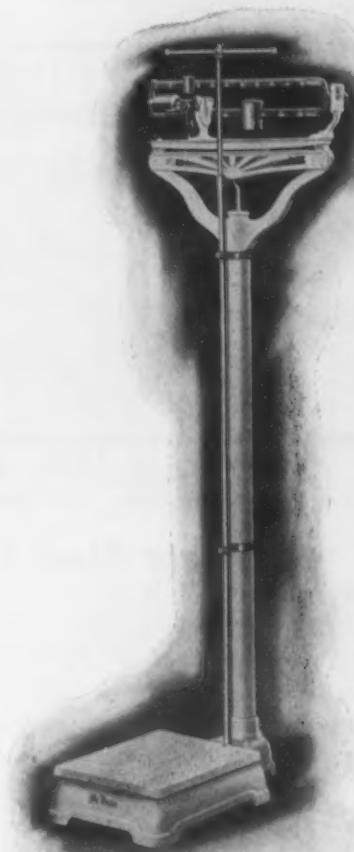
An ornament that fulfills a need in every schoolroom.

Further particulars will be gladly sent to school Superintendents, Instructors, etc., on request.

Address the



7700-7740 So. Chicago Ave.
Grand Crossing Chicago, Ill.



SCHOOL ADMINISTRATION NOTES

GROWTH OF DETROIT RESEARCH DEPARTMENT.

The Department of Educational Research in Detroit, Mich., began its sixth year with the opening of the schools in September. During that time it has grown from a little one-man experiment to a large and important department, affecting the educational activities of the city at many points from the board of education to the children in the classrooms. During the year 1919-20 the board of education will conduct a survey of conditions, and as a part of that survey as well as part of its regular work, the department will give more than a million tests to children. But even more than its regular testing should be emphasized the educative effects the work of the department has had upon the point of view of the teaching, supervisory and administrative staff. In 1914, few had ever heard of educational research, fewer had any sympathy with an attempt to apply scientific methods of educational problems, and almost none had received the training necessary to take part in such work with benefit to themselves. Today, the situation is very different. Many administrative officers, supervisors, principals and teachers, are actively carrying on tests and experiments of their own independent of, and in addition to, the routine work of the department. More and more the department is called upon to advise and to assist in such experimental work rather than to originate and direct it. More and more thru evening and summer schools, and thru correspondence courses, the teachers are

preparing themselves to do their part intelligently and with advantage to themselves. While many misunderstandings still abound, and many problems remain to be solved, the beginning of the new year finds the questions and doubts of 1914 answered favorably to measurement, and the new administration solidly behind a progressive program which means that more and more, reliance will be placed upon impersonal objective data, and the results from tests and measurements, and less upon personal opinion.

Nor is Detroit the only city in which progress in measurement has been made. New York, Boston, Philadelphia, Chicago, Los Angeles, and some fifty or sixty of the other large cities of the country, as well as hosts of smaller ones, are carrying on similar work. While Detroit, due to the pioneer efforts of Deputy Supt. Charles L. Spain, began to experiment in this field earlier than any other large city in the country, and is judged by many to have maintained her lead, still progress in Detroit is part of a general world wide movement which is surely destined to transform education, and so to affect vitally civilization itself. Detroit has both benefited by, and contributed to, the world progress.

To many minds educational research means only "tests", and tests are considered by such persons to be the same as examination. It is true that tests are simple forms of standardized examinations, but their significance is not to be sought in this fact. The really significant element in the movement is the scientific spirit which lies behind the work, the spirit which makes men say "I will never adopt a policy or perform an executive act until as far as possible, I have secured by measurement on an impersonal objective basis all the facts about the entire situation so that I may act intelligently. And after I have adopted a policy or performed an executive act, I will open-mindedly endeavor to secure by further measurement just as many facts in regard to the effect produced as I can get." Educational research is the "before" and "after" of all educational activity. It prevents self-deception, bias, stagnation; it makes for certainty and for progress.

If the question is asked, "What have been the benefits to the city from the five years of effort

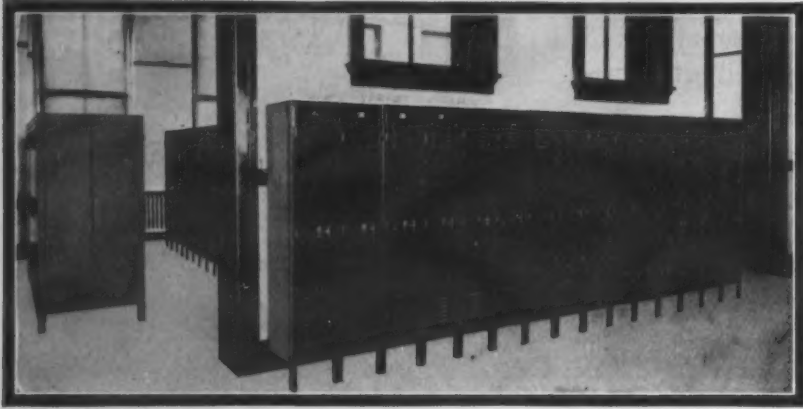
by the department?" answer might be made by pointing to the greater efficiency of the drill work in the fundamental processes of arithmetic and geography, to the new and more effective courses of study in spelling and writing which are the direct products of the cooperation of the department with the supervisors of the subjects. The records show that many thousands of children each year are securing a larger return for their time and efforts than formerly, and that the effectiveness of the new methods is steadily increasing. These results are important in and of themselves. But the department prides itself on two other achievements which it considers of even greater value. The first of these is the development of adequate methods of handling the testing work in a large city. In 1914 the tests themselves were faulty and the methods of tabulation intricate. Today Detroit has a well organized, simple, and effective system which enables the department to give more tests and to make more effective use of the results than any other system in the land. The second achievement is the development of the progressive attitude (referred to above) on the part of the teaching corps. These two achievements are the foundations of progress. Until they had been accomplished the work of the department was experimental, its value problematical. Now the future holds many possibilities, and educational research is prepared to do its share thru many years to come in bringing about ever better and better educational conditions in Detroit.

ADOPT NEW CENSUS SYSTEM.

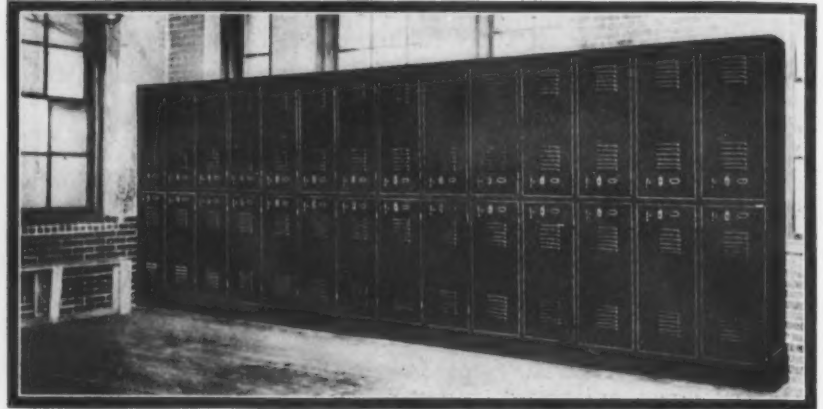
School administrations owe it to the public and to themselves to see that every child within the age limit fixed by law attends school or has an excellent reason for non-attendance. However, keeping account of the children of eligible school age is worth while from a business standpoint also. In Indiana, for example, every child who attends school adds approximately five dollars to the fund of the schools, that being the per capita value of the common school fund of the state.

How to keep track of the children is the problem which grows more difficult as the size of the community increases. In Indianapolis schools, a card index system has been adopted, which, it is

For Your New School Buildings



In Washington High School, Massillon, O. Single tier Berger Lockers arranged in corridor and Locker room. Note the grouping.



In Paul Jones High School, Boston, Mass. Double tier Berger Lockers. The arrangement of Lockers in corridors offers economy of space, convenience and improvement in discipline.

Berger Steel Lockers

Strong in construction, handsome in appearance and complete in detail, Berger Steel Lockers are ideal equipment for any school. Two groups of six extra large louvers in each door give excellent ventilation and the three point lock is simple and positive in its action. The standardized parts permit any desired grouping and rearrangements without loss.

WANT CATALOG Y-7? SUGGESTIONS? QUOTATIONS? WRITE NEAREST BERGER OFFICE.

THE BERGER MFG. CO. - - - CANTON, OHIO

Branches: Boston New York Philadelphia Chicago St. Louis Kansas City Minneapolis San Francisco
Export Department: Berger Building, New York City, U. S. A.

Berger Locker Service

The best grouping of Lockers is a problem which Berger specialists are always glad to help you solve. Plans will be made to suit the building and, if desired, we will install the lockers complete.

Standard Locker parts are stocked by every Berger Branch. This means that your equipment can be shipped just when you need it.

BERGER STEEL LOCKERS

believed, will cut off every loophole for the family which tries to evade its duty to the child.

A school census is taken annually in Indiana by law, and the authorities in every city therefore have a fairly accurate estimate of the attendance they should obtain. Movement of families and consequent change of the school attended, however, detract from the applicable value of the enumeration.

This year, as soon as the enumeration was completed, the name of every child between the ages of 7 and 16 was put on a card, which contains space for other data, including the sex, color of the child, name of the family head or person in charge, and the length of the family's residence in the city.

The cards are sent to the principals of the various schools, who distribute them to the teachers. The latter, after checking off the names of children who are actually in his or her class, fills out other cards with the names of those who are in the class, but are not accounted for by the census. The cards are then returned to the central office.

In this way, the schools not only have an accurate line on all children reported by the annual census, but it also gets information of many who were overlooked in some way, or who moved to the city after the canvassers completed their

work. Each name thus secured, as indicated, is worth \$5. The educational advantages, of course, are above price.

The system, it is pointed out, will grow in value with each year. It is also suggested that it may be the basis for a Statewide exchange of information regarding school children, just as business houses exchange credit information. If, for instance, a child should move from Indianapolis to Terre Haute, the Indianapolis school administration could merely withdraw its card from its own files and send it to the Terre Haute organization, which could take the necessary steps to secure the pupil's attendance at school, if it were not voluntary.

The only flaw in the Indianapolis plan is that many families, asked as to why a child reported by the census has failed to attend any of the public schools, reply that it is going to parochial school. The fact that there was little cooperation between the two types of educational institutions was well known, it appears, and the excuse became a common loophole for those seeking to evade the law.

The logical step was to establish a bond with the parochial schools and this has proved to be easier done than was expected. The parochial authorities have as much at stake as the public schools, and have evinced a willingness to work with the latter, particularly as the card system is so simple that it causes little extra work. When the system is completed, and all cards filled out, one person can keep the index up to date by means of an hour's work daily.

INCREASING ATTENDANCE IN THE SCHOOLS.

A unique plan of school advertising as a means of increasing attendance of pupils was successfully carried out by the school authorities of Fonda, Ia., during the month of August. The plan which was entirely new in concept and operation, was developed and carried out by Supt. D. V. Masser.

The campaign began with the distribution of printed cards among the school patrons and also prospective students of the new school year. A week previous to the opening of sessions, a full-page advertisement was run in the Fonda daily

newspaper. This advertisement which was rather comprehensive in character, emphasized the strong features in the schools, called attention to the course of study, listed the books used in the different grades and gave the number and names of the faculty members. A strong appeal was made to the school children to attend classes as a means of extending their education, and parents were solicited for the purpose of encouraging school attendance.

As a result of the advertising campaign the Fonda schools have witnessed the largest enrollment in the history of the schools. The Fonda school authorities consider the plan a remarkable success and recommend it to other school authorities who might benefit from a trial of it in their own schools.

THE DETROIT SURVEY PLAN.

At a meeting of the Detroit (Mich.) board of education, held July 4, 1919, it was decided to make a complete survey of the entire school system by departments and to have a report made as soon as the study of each department had been completed. The committee appointed to direct the survey consisted of Inspector Frank Alfred, chairman, Inspectors S. C. Mumford and J. S. Stringham.

In preparing for the survey, the committee adopted the following procedure for securing the necessary data:

1. The Bureau of Research was asked to make a complete audit of accounts as of June, 1919, and to report upon the methods in vogue in the accounting department, with recommendations for improvement, and a report as to whether or not the recommendations of the Bureau made last year have been fully complied with, and whether the new forms and blanks have been installed for the various departments. The report must be complete and must include information helpful to the board, i. e., cost per pupil for instruction in the elementary schools, in the high schools, in the technical school, and in the college of medicine. There should be a general balance sheet and an inventory of the movable materials, including books. The handling of the accounting work was delegated to Mr. Mumford.

Concluded on Page 76)

Last Name		First Name		Sex	Color	INDIANAPOLIS PUBLIC SCHOOLS Census Record	
				M	F	W	C
Head of family or person in charge				Relation to child		Birth place of child	
Length of residence in the city				Relation to child of person giving information		Address	
1919	Age	Date of Birth	Occupation	Address		School	Grade
			ABCDEFGHI				
			ABCDEFGHI				
			ABCDEFGHI				
			ABCDEFGHI				
			ABCDEFGHI				
			ABCDEFGHI				

Form of Card used for Recording Indianapolis Census Facts

Opens October 15th

International Exposition of Municipal Equipment

GRAND CENTRAL PALACE

YOU should be represented at this great permanent world market where manufacturers and selling agencies will put their products before the eyes of thousands of buyers. This huge mart will include equipment for Departments of Streets, Education, Health, Police, Fire, Water, Heat, Light, Power, Garbage Disposal, Cold Storage, Laboratory Supplies, Hospitals, Playgrounds and Parks,—all material used in the administration, construction and maintenance of Municipalities.

Bankers, brokers, city officials, engineers, members of chambers of commerce, municipal experts, commercial and civic clubs, agents and commissions of foreign governments—all who are interested in managements of cities will find here much that is of vital interest. They will have an opportunity to gain knowledge of new methods and inspect actual models.

The cost of maintaining annually an attractive exhibit at the Exposition of Municipal Equipment, where *thousands* will go to buy, will be approximately one-tenth the cost of maintaining a first-class salesman on the road, visiting but a *limited* number of buyers. This exposition is one of the eight permanent industrial expositions in Grand Central Palace operated by the Merchants & Manufacturers Exchange of New York.

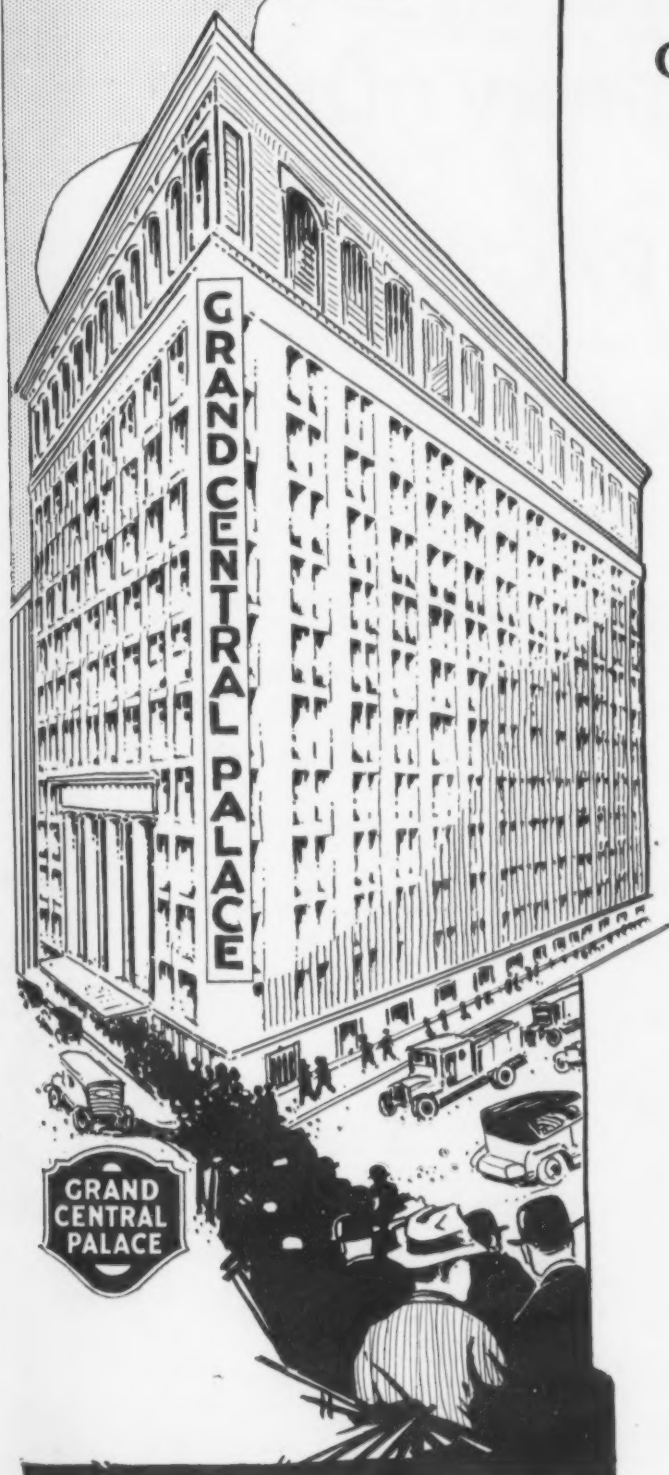
The Nemours Trading Corporation, which owns and controls the Merchants and Manufacturers Exchange, has branches and selling agencies throughout the globe.

International Exposition of Municipal Equipment

Grand Central Palace

Lexington Avenue, 46th to 47th Streets,

New York





You KNOW
Wolff Plumb-
ing—is it worth
while to con-
sider any other?

L. WOLFF MANUFACTUR- ING CO. Mfrs. of Plumbing Goods Exclusively

General Offices - 255 N. Hoyne Ave.
Show Rooms - 111 N. Dearborn St.
CHICAGO

(Concluded from Page 74)

In the follow-up of certain features of the survey by the superintendent and the assistant, a careful study was made of the individual schools, commencing with the Northern High School to determine whether all of the rooms and facilities were being proportionately used; that is, as to whether the overloads in certain rooms could not be relieved by increasing the use of the other rooms. The study must include a careful analysis of the relation between the different courses of education in both the elementary and the high schools, in the expectation that the final result when computed for the entire city, would formulate the basis for a future building program; that is, the percentage of the building to be assigned for the different departments.

The survey also included a study of the service performed by the different teachers, and the hours over which the service is spread. The study will develop the extent of efficiency in the teaching staff, and also the advisability in congested districts, of giving consideration to using two staffs in one building, or lap-over system, making use of the noon hour period.

SCHOOL ADMINISTRATION NOTES

Cincinnati, O. A new method of training teachers for high school positions is being tried out this year with the cooperation of the College for Teachers. Under the new plan, students of the College will be placed under the direction of experienced high school teachers and will teach under the supervision of the latter. Teachers of French and English are to be trained at Hughes High School, those in Spanish at the East High School, and those in mathematics at the Woodward.

The schools of Everett, Mass., opened with a serious congestion of students. All available space has been utilized and plans have been made to use the assembly rooms and to conduct part-time classes.

New York, N. Y. The schools opened with an estimated increase of 15,000 students and accommodations for less than one-tenth of that number. No new buildings have been opened since peace was declared but it is planned to provide addi-

tional classrooms in the near future so that each child may have a seat.

The East Side High School, the latest addition to the high schools of Cincinnati, opened on September 8th with a corps of sixty teachers and an estimated attendance of 1,300 students. The new high school consists of a central group of buildings, connected by hallways, besides a separate gymnasium and an industrial arts building. The building represents the latest in high school construction and contains a great number of very large rooms which may be used for social as well as school purposes.

The gymnasium and the industrial arts building are incomplete at the present time and the stadium will not be ready for use until next spring or summer.

A beautiful feature of the structure will be the large organ which is to be installed some time during the school year. Mr. R. K. LeBlond, donor of the organ, made a gift of \$22,500 toward the purchase and installation.

The board of education of Columbus, O., has intimated that it may be necessary to close the schools at the end of the first six months of the next term if the extra tax levies are not granted by the citizens. Contracts of teachers have been changed to provide that length of service shall be dependent on the income of the schools, thus practically placing the instructors on a monthly basis of employment.

A tentative estimate of the new tax levy for Omaha, Neb., provides for a tax of 45 mills, as against 35 mills for the past year. Supt. J. H. Beveridge and the members of the board point out that provision should be made in the new budget for working capital to provide for times when tax collections do not meet the expenditures.

The school board of Des Moines, Ia., has begun the construction of two large high school buildings in connection with the contemplated building program of \$650,000. In addition to these, there will be two grade schools and additions to the two existing high schools.

The school board of Waukegan, Ill., has asked for \$175,000, \$75,000 to be used for building purposes and \$100,000 for educational expenditures.

The school board of Belleville, Ill., has asked for a tax levy of \$135,000 for the maintenance of the schools and for the liquidation of the bonded indebtedness. The new levy is an increase of \$45,000 over last year.

Portland, Ore. A total of 105 portable buildings have been constructed ready for use in September. The buildings were erected at an approximate cost of \$2,000 per room, or a total of \$210,000. The buildings will take the place of permanent accommodations which could not be provided because the money was not voted.

School District No. 14 of Bernalillo County, N. Mex., has voted a bond issue of \$30,000 for the enlargement of the four schools in the district. The district is the largest outside of Albuquerque and its jurisdiction includes Old Town, Santa Barbara, Duranes and that section on North Street north of the city of Albuquerque. The residents are about equally divided between Spanish-Americans and Anglo-Americans.

North Providence, R. I. A short commercial course has been introduced in two of the schools for the benefit of students who have finished the grades and who find it necessary to reduce their high school training to one or two years. It will also be of benefit to students who in the past have been compelled to get their high school training outside their home town. The course offers training sufficient for entering a profession and provides a high school education covering the essentials of a mercantile or industrial business.

Auburn, Neb. A two-year course in household economics, operating under the Smith-Hughes law, has been introduced in the high school. All girl students of the high school are eligible for the course.

Chillicothe, O. A teacher-training class has been established in the high school as a means of meeting the shortage of teachers in Chillicothe and Ross counties. The school aims to bring the benefits of normal training to the students and to obviate the necessity of leaving the home city. The expense is to be borne jointly by the county and the state.

CLOW



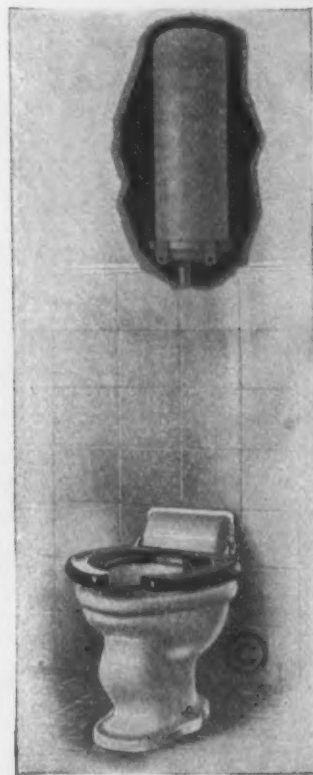
CHICAGO

Greatest Service at Least Cost

That's what thousands of installations in schools all over the country have proven about

CLOW

Automatic Water Closets



M-3127 "TUTORIC"
Concealed Tank, Local Vent

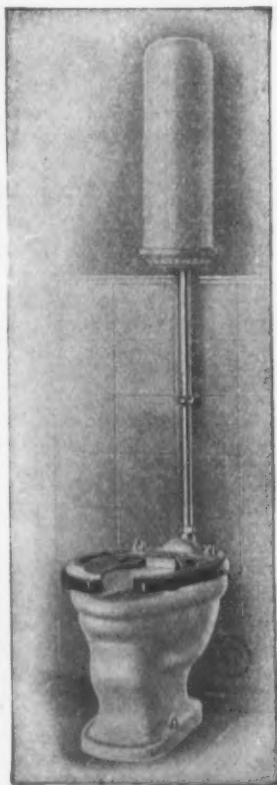
And we can prove by hundreds of letters that CLOW closets have saved thousands of dollars in water bills alone. And equally important these famous closets average over a period of ten or more years only a few cents for repairs per year. In one case only 1½ cents was expended per year per closet during eleven years of hard use.

Another letter shows that repairs, etc., were so small they couldn't be estimated—while the saving in water was over 350%.

Take the closets shown on this page—they require four gallons less water to flush than the hand pull type and have shown a decided saving when compared with other makes of automatics.

There are hundreds of other cases we could cite, but the evidence is so overwhelmingly in favor of Clow that it is needless to say more here.

Your letter of inquiry will receive prompt attention and we believe you will be surprised at the actual saving we can make for you.



M-3120 "Jetric"
With Exposed Tank

JAMES B. CLOW & SONS

534-546 SOUTH FRANKLIN STREET

:

CHICAGO, ILL.

CLOW

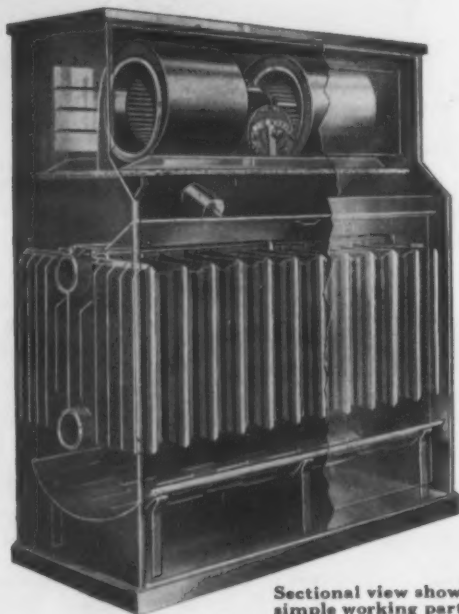


CHICAGO

School Boards!

Investigate this Simple,
Self-contained Unit
Heating and Ven-
tilating Device

The
UNIVENT
"LIVE OUTDOORS—INDOORS"
(PATENTED)



Sectional view showing
simple working parts

If you are interested in a heating and ventilating system that has never yet failed—hundreds in use—

If you want a system that is simplicity itself, a remarkable economy in fuel, power and space consumption—

If you can use a system with the same 100% efficiency in one room or twenty rooms and one that can be used only in as many rooms as desired—

If you want absolute diffusion of fresh air in quantities proportioned to the number of occupants in each room—by very simple adjustments.

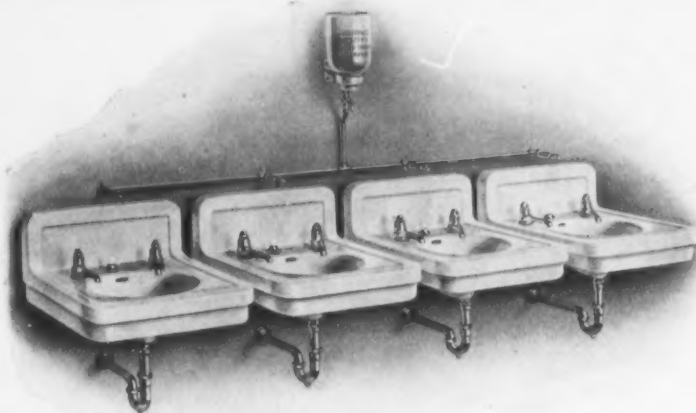
—then install the UNIVENT.

Write for free illustrated Catalog and Engineering Data Book. Ask your architect to send your plans to us for suggestions. We can give you what you have perhaps never had before—perfect fresh air ventilation, winter and summer conforming to every state and Government law covering hygiene in the schoolroom. Let us prove it to you. Address Moline Heat, Dept. J, Moline, Ill.

WRITE
for our
De Luxe
Catalog
in Colors

Moline Heat
EVERYWHERE
Moline Illinois

SEND
Plans for
Inspection
and
Suggestion



Watrous Gravity Liquid Soap System (PATENTED)

For School Buildings

Purchasers of school supplies and equipment, here is a definite end to your liquid soap troubles! The Watrous System operates wholly by the time-proven gravity principle.

There are no moving parts to get out of order. A simple valve delivers a pre-determined supply of soap without waste or drip. The large soap container is located where it cannot be broken by children; it is easily refilled or replaced by a new container in a moment's time.

WATROUS
PATENT
PLUMBING
FIXTURES
AND
DUOJET
WATER CLOSET

Any number of wash-stands are served from one container, thus doing away with the tedious filling of individual fixtures formerly used.

Economical, durable, sanitary and simply constructed, the entire Watrous Line of Sanitary Plumbing Fixtures represents the most advanced and modern ideas known to plumbing science. It includes Watrous Duojet Closets and Flushing Valves, Self-Closing Cocks, Urinals, Drinking Fountains, etc.

Free Catalog will be sent on request

The Imperial Brass Mfg. Co.
1215 W. Harrison St. CHICAGO, ILL.



NELSON PLUMBING FIXTURES

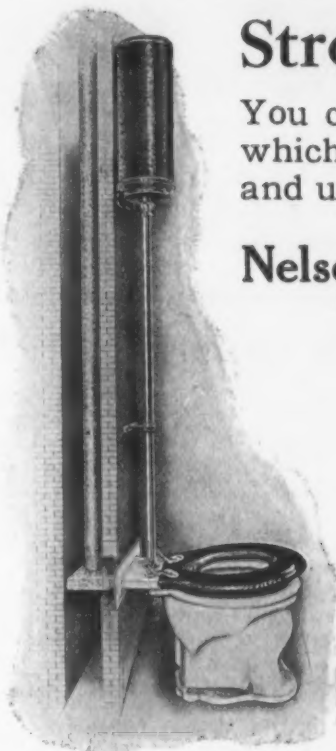
Strong—Reliable—Indispensable

You can't afford to install fixtures in your school building which are continually causing a great deal of inconvenience and unnecessary expense by getting out of order.

Nelson Plumbing Fixtures

are everything plumbing fixtures should be—correct both in design and workmanship. They are especially designed for school use because of their strength and durability. They are guaranteed to withstand the hard usage usually received from school children.

Write us today. Our experts are at your service.



954-N



594-N

N. O. NELSON MFG. CO. EDWARDSVILLE, ILLINOIS
SAINT LOUIS, MISSOURI

BRANCHES:

LOS ANGELES, CALIF.
MEMPHIS, TENN.
DAVENPORT, IA.

PUEBLO, COLO.
HOUSTON, TEXAS
LITTLE ROCK, ARK.

SALT LAKE CITY, UTAH
BIRMINGHAM, ALABAMA



SCHOOLROOM HYGIENE AND SANITATION.

Haverhill, Mass. A careful physical examination of all children in the schools has been made with a view to protection against an epidemic of influenza.

Minneapolis, Minn. The board of education has secured the use of one of the Red Cross war-work automobiles for a traveling dental clinic in the schools. The clinic is to be known as unit No. 1 and will be sent to any school where there is need for dental work. The traveling clinic makes it possible to handle dental work much more economically than in the past.

Chicago, Ill. The board has opened 24 penny lunches as a prevention of anemia and tuberculosis. The new centers raise the total number to 54.

An enlarged program of medical inspection has been suggested for the public schools of Milwaukee by a public health committee of the local City Club. The report recommends the consolidation of medical inspection under the health department and suggests that the greater part of the study be devoted to an enlarged program of inspection.

A general community plan is recommended as a more desirable type of nursing service than a specialized school nursing department for the reason that a large number of families have within them the health problem not only of the school child but of other members of the family in addition.

According to the plan, the city is to be divided into nursing districts, each in charge of a district supervisor, to direct the work of the nurses. The nurses will not specialize in tuberculosis work, school work and infant hygiene, but all these classes of work are to be carried on together.

The committee's report shows that no adequate system of medical inspection can be conducted until the present force of medical inspectors and nurses has been materially increased. Each doctor should be limited to three thousand children and each nurse to one thou-

sand. This requires a minimum of 25 medical inspectors and 75 nurses. The report recognizes the necessity of training for nurses and urges a course of training covering a period of three months and including actual instruction and field experience under the supervision of experienced members of the department.

Battle Creek, Mich. A dental clinic has been established. Dental examinations have been made compulsory for all children.

Cincinnati, O. A penny lunchroom has been established in the Stowe School. The equipment has been installed at an estimated cost of \$300.

The Wyoming State Board of Health has just issued a bulletin containing a synopsis of laws relating to public health. One of the sections contains a new ruling of particular interest to district boards of education and to educators generally. The rule requires that children of school age shall furnish, annually, certificates of vaccination against smallpox, or other proof, before they are admitted to classes. Children entering the schools for the first time are also required to bring certificates.

Special classes for the instruction of subnormal children have been established in the public schools of Chicago.

Huntington, W. Va. The board plans the employment of a medical inspector to look after the health of the school children.

Chicago, Ill. A total of 24 new lunchrooms has been opened to provide suitable warm lunches for the children. There is a shortage of \$25,000 in the lunchroom fund which is partly due to the fact that the McCormick fund will no longer be at the disposal of the school authorities for the purchase of food. It is planned to secure funds from some other source to make up the deficiency.

The business manager of the Cincinnati schools has issued orders to the janitors and engineers in the respective buildings to shut off the water supplied to drinking fountains, faucets and urinals fifteen minutes after the close of sessions. The order is intended to prevent the unnecessary waste of water in school buildings.

MEETING OF THE ILLINOIS STATE SCHOOL BOARD ASSOCIATION AT URBANA, ILLINOIS, OCTOBER 29-30.

The Illinois State School Board Association will hold its regular annual meeting in Urbana on October 29th-30th. This Association has grown rapidly. Its influence has brought about various desirable changes in the school laws, and has stimulated boards to undertake and accomplish much that would not otherwise have been done. Men and women charged with the responsible work of the schools, the boards of education, are looking more and more to the Association for leadership,—and they find it!

The program for the coming meeting is, in part, as follows:

Supt. James W. Withers, of the St. Louis Public Schools, will speak on the "Training of Teachers for the Public Schools Before Service and During Service." This will be discussed by Dr. C. E. Chadsey, Dean of the College of Education, University of Illinois; President L. C. Lord of the Eastern Illinois State Normal; Supt. T. E. Savage of the Havana Public Schools; and by Supt. W. C. Reavis of the Alton Public Schools. There will be a banquet.

Prof. Thomas A. Moran of Purdue University will give an address on "Americanization."

"Physical Training in the Public Schools," and an especial discussion on "Supervised Play," by experts yet to be announced, will make an important part of the program.

Judge W. G. Spurgeon of Urbana has been secured for a talk on "Consolidation of School Districts and Enlargement of the Territorial Unit."

The largest attendance in the history of the Association is expected, and furthermore this expectation will be realized. Wideawake city and village boards will hardly fail to be represented by at least one of their number.

R. H. Brown of the Rockford Board is President of the Association, and Mrs. Grace A. Stover of the Oak Park Board is the Secretary.

SCHOOL-ARCHITECTS'-DIRECTORY

CLYDE S. ADAMS, Architect and Engineer

Twenty-five years of the Study of Meeting School
Requirements in a Practical Way

1509 Arch Street, Philadelphia, Pennsylvania

Specialists in School Houses Twenty Years of Experience

LEONARD ASHEIM, Architect

305-306 Court Exchange, 211 State Street
Bridgeport, Connecticut

THE W. W. BEACH COMPANY ARCHITECTS AND ENGINEERS

SIOUX CITY, IOWA

We have been building Schools and Colleges
in the United States since 1899

WILLIAM J. BEARDSLEY

ARCHITECT

POUGHKEEPSIE NEW YORK

J. C. BERRY & COMPANY

Architects

Amarillo, Texas

Investigate Our Services in Planning Your New Building

FRANK IRVING COOPER

Specializing in School Planning
Consulting Service to School Boards
33 Cornhill, Boston, Massachusetts

CHAS. A. DIEMAN & COMPANY

Architects and Engineers—Plumbing and Heating
405-408 Granby Building, CEDAR RAPIDS, IOWA

60 Schools to Our Credit in Past Few Years

THE ELMER E. DUNLAP COMPANY

ARCHITECTS

Specialists in School Planning, Design and Construction
Consulting Service to School Officials—73 Schools in past 10 years
State Life Bldg., Indianapolis, Ind.

J. H. FELT & COMPANY

Architects—Engineers

Specialists in School Planning

Kansas City, Mo. Mason City, Iowa

LEONARD H. FIELD, JR.

ARCHITECT

JACKSON MICHIGAN

School Work a Specialty

H. A. Foeller, A. I. A.

Max. W. Schober, A. I. A.

FOELLER & SCHOBERT

ARCHITECTS

Green Bay, Wisconsin

J. W. GADDIS

Architect

School Work a Specialty

608 - 14 American Bank Building, Vincennes, Indiana

WILLIAM GORDON, A. I. A.

Architect

319 Hubbell Building

Des Moines Iowa

GUILBERT & BETELLE

Architects

Newark, New Jersey

WILLIAM E. HARRIS

Architect

2110 North Fifth Street, Kansas City, Kansas

WM. B. ITTNER, F. A. I. A.

Architect and School Specialist

Board of Education Building

Saint Louis Missouri

Karl K. Keffer

Earle E. Jones

KEFFER & JONES, Architects

Hubbell Building DES MOINES, IOWA

Architectural and Structural Design Mechanical Equipment of Buildings
Specializing in Iowa Consolidated Schools High and Grade Schools

ROBERT J. KEICH

School Architect

Warren Ohio

G. L. LOCKHART, Architect

Planning Schools Exclusively

Consultation Service Rendered to School Boards
in Connection with Bond Issues and School Surveys
391 Endicott Bldg., ST. PAUL, MINN.

LOWINSON AND SCHUBERT

Architects and Engineers

School Buildings

366 Fifth Avenue

New York

SCHOOL-ARCHITECTS'-DIRECTORY

ROBT. A. MESSMER & BRO.

Architects

Majestic Building Milwaukee, Wis.

MOUNTJOY, FRENCH & FREWEN

Architects

Chamber of Commerce Building
Denver Colorado

OPPENHAMER, SPEER AND OBEL

ARCHITECTS

Our Specialty—Designing and Construction of Public Schools
Chicago, Illinois: Suite 1823 Continental and Commercial Bank Building
Wausau, Wisconsin: New Spencer Building, 605 1/2 Third Street

Albert S. Owen, A. I. A.

Chas. H. Payson, A. I. A.

Robin B. Carswell

OWEN & PAYSON

Architects

202 Reliance Bldg., Kansas City, Mo. American Bank Bldg., Fort Madison, Iowa

EDGAR A. PAYNE

School House Architect

Special Attention Given to Proper Lighting, Heating and
Ventilating of Schools. Correspondence Solicited Anywhere
Carthage, Ill.

PERKINS, FELLOWS & HAMILTON

814 Tower Court, Chicago, Illinois

Members of the American Institute of Architects

J. H. Pierce, F. A. I. A. H. H. Bickford, F. A. I. A. R. T. Bickford, B. Arch.

PIERCE & BICKFORD

Architects

Specialists in Fire-Proof School Work
118 and 120 Lake Street ELMIRA, N. Y.

FRANK G. PIERSON

Architect—School Designing

Washington Loan and Trust Building
Washington, D. C.

JOHN NOBLE PIERSON & SON

Architects, School House Specialists

Seventy Schools in Ten Years

PERTH AMBOY NEW JERSEY

C. GODFREY POGGI

Architect - Specialist

275 Morris Avenue, Elizabeth, N. J.

References: Schools of Elizabeth, N. J.

G. R. RAGAN, F. A. I. A.

ARCHITECT

Roanoke, Virginia

I Make a Specialty of School Work, having had twelve (12) years experience in
designing schools. Nothing too large or small to receive my prompt attention

I. H. & W. M. RAPP & A. C. HENDRICKSON

Colorado Office: Trinidad

New Mexico Office: Santa Fe

GEO. O. ROGERS

Architect - Consulting Engineer

Schools, Churches, Theatres, Residences, Business Blocks

Hartje Office Bldg., PITTSBURGH, PA.

JOSEPH W. ROYER

Architect

Flat Iron Building, Urbana, Illinois

We Specialize in all Classes of School Buildings

N. S. SPENCER & SON, Architects

Specialists in School Planning and Design

1490 Old Colony Building, Chicago, Illinois

C. H. SUDHOELTER COMPANY

ARCHITECTS

Engineers and Designers of Public Schools

Telephone 3734 215 West Ninth St., JOPLIN, MO.

H. R. TEMPLE

Architect

Twenty Years Experience in School Work

Champaign, Illinois

VAN LEYEN, SCHILLING & KEOUGH

Architects and Engineers

1115-1121 Union Trust Building, Detroit, Michigan

Specializing in Educational and Society Buildings

Our Organization Embraces Specialists in Architecture and Structural
Heating, Ventilating, Electrical and Power Engineering

E. E. WERKING & SON

School Architects and Engineers

Richmond, Indiana

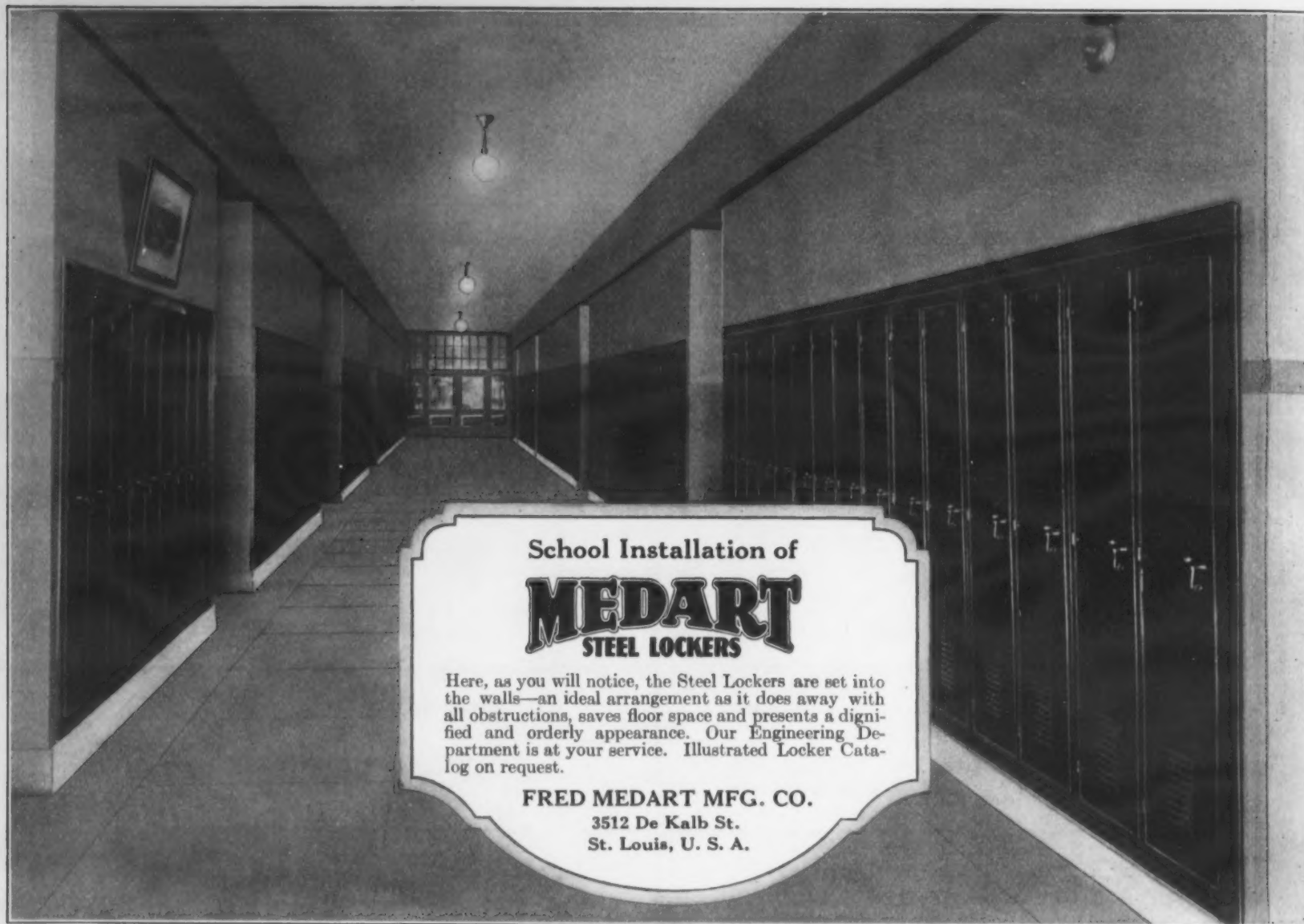
15 Years Experience in Designing School Buildings and Heating and Ventilating Systems

GEORGE WINKLER

A. B. B. of Arch., A. I. A.

School Architect

Palace Bldg., Tulsa, Okla.



School Installation of
MEDART
STEEL LOCKERS

Here, as you will notice, the Steel Lockers are set into the walls—an ideal arrangement as it does away with all obstructions, saves floor space and presents a dignified and orderly appearance. Our Engineering Department is at your service. Illustrated Locker Catalog on request.

FRED MEDART MFG. CO.
 3512 De Kalb St.
 St. Louis, U. S. A.

AMONG BOARDS OF EDUCATION

(Continued from Page 59)

of special promotions given to children throughout the Lawrence public schools during the last school year. They have also been the basis on which children have been selected for admission into the two ungraded rooms which have been maintained in the city for two and one-half years.

A permanent organization of school patrons, taxpayers and graduate students has been formed at Crawfordsville, Ind., to protect the schools from pernicious influences and to promote the best interests of the students and teachers. The establishment of the society followed the ineffectual attempt to have Miss Anna Willson reinstated as principal of the high school, from which she had been summarily dismissed. The citizens have demanded the resignations of the two school trustees, the superintendent of schools and the principal as further evidence of their disapproval and lack of confidence in their ability to administer the schools properly.

Cleveland teachers whose homes are outside the city, have found some difficulty in obtaining proper boarding places. The board is threatened with the loss of a number of its teachers and the disorganization of its staff unless the citizens come to the rescue.

The school board of Muskegon, Mich., at the opening term, was considerably worried over the problem of boarding places for teachers. The condition became so serious that a "tent colony" was threatened unless the people opened their homes to the teachers.

Yakima, Wash., at the opening fall term, offered eleven boarding places to fill the needs of 121 non-resident teachers. The condition appears to be due to the coming of apartment houses and to the reluctance of citizens to take boarders.

Twenty-five schools in Stockton township, Greene County, near Linton, Ind., failed to open for the fall term in September because of differences between James T. Roach, township

trustee, and the teachers' union organized the past summer.

It appears that members of the union had made demands several weeks ago which would result in the employment only of union instructors and would limit the powers of a trustee under the law. The demands which have been refused, included the re-employment of all members of the organization unless they were unacceptable, and a scale of salaries ranging from \$60 to \$120 a month.

A complete staff of non-union instructors was obtained but they were intercepted by the union members and persuaded not to teach. Strong union sympathizers among the parents of pupils have pledged themselves not to send the children unless union instructors are employed.

Port Clinton, O. A compromise has been effected between the board and the school teachers of Danbury township on the matter of a twenty-five per cent increase in pay. The teachers, with only one exception, have accepted the \$10 increase in pay.

The school board of Cincinnati has adopted an amendment to the rules providing that teachers shall be allowed not more than five days' absence in any year with full pay, for personal illness certified to by a physician. Pay may also be allowed for not more than 35 additional days of absence, at one-half the regular salary.

A former rule took away the teachers' pay for the first three days of illness and for the 37 additional days, allowed only the difference between the regular salary and that of a substitute.

State Supt. V. O. Gilbert of Kentucky, in discussing "plain facts about Kentucky schools," asks whether the schools are below standard because the state is poor, or is the state poor because the schools are below standard. He cites the fact that the state's per capita wealth is \$977 while that for the United States is \$1,965. Kentucky spends \$9.76 per pupil for education, while the average for the three states across the river is \$27.60.

Mr. Gilbert points out that local taxes for school purposes are far below the average in

other states. If Kentucky local taxing units came up to the national standard, the state would have about \$12,000,000 added to its local fund. In the United States the average is \$1 from the state to \$5 from local taxation. In the three states across the river it is \$1 from the state to \$10 from local taxation.

Kentucky has \$19 invested in school property for each child of school age while the average so invested in the whole country is \$55 and the average for the three river states reaches \$24.54.

Kentucky's average rank in the points of efficiency, enrollment, average attendance and length of term is fortieth from the top and eighth from the bottom of the list of states.

The state has a large state school fund as compared with other states, but only five cents out of each dollar paid for teaching is paid from local taxation. Any county may levy thirty cents on the \$100 for school purposes but it is shown that last year out of 105 counties, 22 levied fifteen cents or less; 68 levied sixteen to twenty cents; 19 levied more than twenty cents and only fourteen levied as much as thirty cents.

Any sub-district may by vote, levy upon itself a tax not to exceed 25 cents on the \$100 for school purposes but this is so rarely done that very few know of this means of securing funds for the payment of teachers and school improvement.

The average annual salary paid rural teachers in Kentucky in 1916-17 was only \$301.28 so that the state was compelled to employ 1,646 inexperienced teachers. The county schools were taught by 9,357 teachers who had nothing higher than a county certificate as evidence of teaching qualifications.

The school board of New Philadelphia, O., estimates that it will have a deficit of \$18,000 for the last school year. The cost of operating the schools has increased 35 per cent in the last five years.

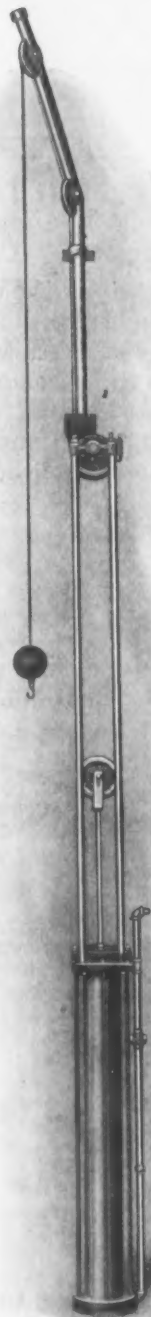
Temple, Tex. The board has fixed the tuition fee for grammar grade students at \$4 and that for high school pupils at \$6 per month with the first three months free of charge.

PAYNE HYDRAULIC ASH HOISTS

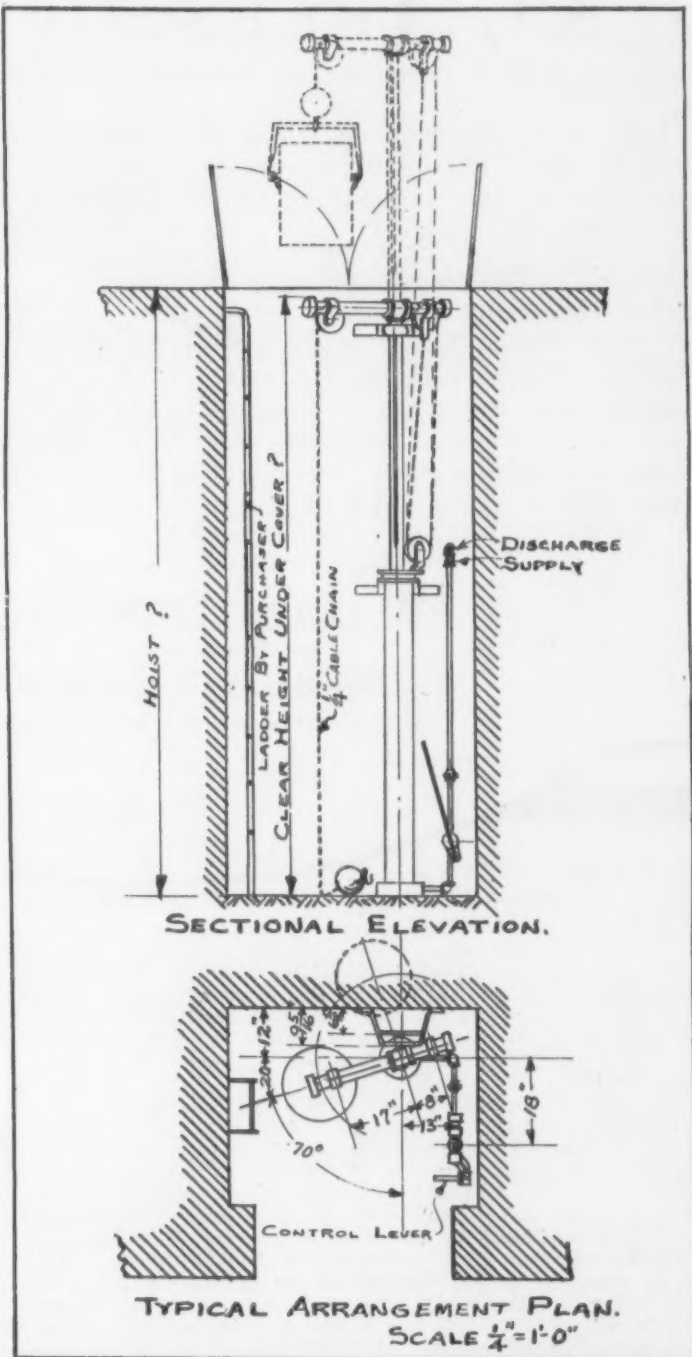
ECONOMY



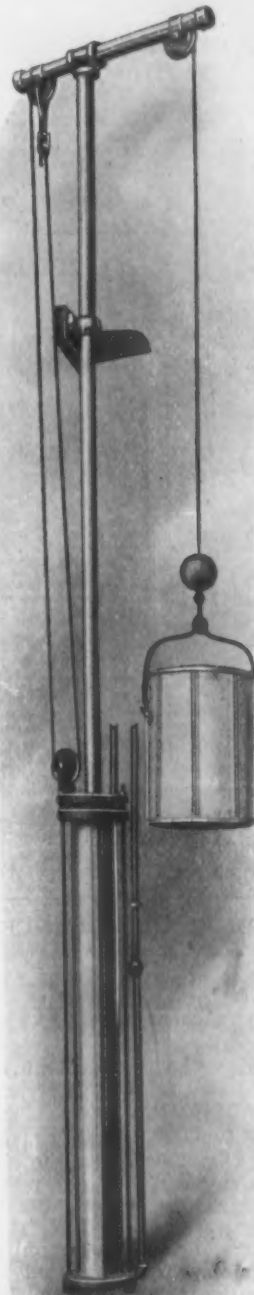
DURABILITY



Fixed Mast Type



Installation Details
DETAILS OF PAYNE HYDRAULIC ASH HOISTS (PATENTED)



Disappearing Mast Type

Eight (8) Reasons Why Payne Hydraulic Ash Hoists Should Be Used

1. The ideal solution of the ash hoist problem where permanence, economy of operation and maintenance is considered.
2. After years of actual operation in varied uses it has been conclusively demonstrated that this equipment is practically self maintaining.
3. It is the most economically operated hoist ever designed, as the water consumption is invariably less than two cubic feet a trip.
4. Skilled attention is not essential to satisfactory operation.
5. These machines were originally designed for use in schoolhouses, and due to their success in this service are now being used wherever it is necessary to raise ashes or other materials from basement to sidewalk level.
6. The machine is designed not to disturb conditions in existing buildings nor require special provision for it in the building.
7. Any mechanic can install this machine, as it is free from any mechanical complications and detailed instructions are furnished for the erection of the apparatus.
8. The hoist can be moved and relocated without sacrificing any part of the apparatus.

WHEN ORDERING: Please furnish the following data:

(1) Water pressure available; (2) Distance between loading and unloading levels.

ELEVATORS

Electric
and
Hydraulic

CAMBRIDGE
F.S. PAYNE CO.
MASSACHUSETTS

ELEVATORS

Passenger
and
Freight

Ever See Three or Four Men Struggling with Ash Cans at Your School?

The same job can be done by one man with the

G & G TELESCOPIC HOIST

with Automatic Gear Shifting Brake Device and Silencer

Illustrating the Model A Hoist with Automatic Gear Shifting Brake Device and Silencer.



Compare the one-man operation of this Model A Hoist with a gang of men banging cans and spilling ashes all over the sidewalk

Ten Hoist Models, manual or electrical, delivering to sidewalk or directly to truck. Easily put in without building alterations. Its installation means the economical, cleanly and quiet removal of ashes and rubbish, and tidy, sanitary basements. When not in use the entire apparatus

telescopes below the sidewalk. The G & G Sidewalk Doors close over the hoistway level with the grade. These Doors open, close and lock automatically.

When writing, please tell us the conditions at your School Building: height of lift; quantity of ashes to be taken out; how often to be removed and whether cans are to be hoisted to sidewalk, or high enough to dump directly into wagon alongside hoistway?

Send for Illustrated School Pamphlet

GILLIS & GEOGHEGAN

Power Plant Installations Since 1866

551 West Broadway New York

Sherbrooke, Quebec, Canada

Agencies in Principal Cities

BUILDING AND FINANCE

(Continued from Page 60)

The cost of maintenance for the schools of New Philadelphia, O., has increased 55 per cent in five years. There is a deficit of \$18,000 from the past year.

The school board of Butte, Mont., will have a deficit of \$15,000 the next year on an estimated budget of \$940,000.

The schools of Wichita Falls, Tex., are threatened with disruption because of the shortage of boarding homes for teachers. An effort has been made to secure boarding places in private homes.

A move by the school book publishers to charge higher prices for books used in Illinois has been met with an order from State Supt. F. G. Blair to resist higher prices. Supt. Blair points out that the prices were set in 1917 for a period of five years and that they should not be increased until the expiration of the contract. Books have been billed to dealers at prices in advance of those originally listed with the superintendent. This is in direct variance with the orders of the superintendent who refused to permit any increase over that fixed in 1917.

The state school fund for Missouri, which was recently apportioned, is the largest ever distributed. The revenues of the state were also the largest with one-third of the fund going to the schools.

Detroit, Mich. At the suggestion of its building committee, the school board has adopted a policy looking to the selection of building sites in anticipation of the city's growth. In this connection, the board has begun condemnation proceedings for about forty acres of land to be used for a high, junior high and elementary school group. These schools will take up sixteen acres and will relieve the congestion in the Northern high school and several elementary schools. Considerable acreage will be used for playground space.

A second policy of the board is the provision for relief from congestion by the erection of schools nearby, instead of building additions to existing structures. In this way entirely new school centers will be established.

A number of portable buildings will be

erected in the more congested districts at a cost of \$2,192 each.

Success has attended the efforts of school districts in Ohio to secure an extra assessment for the benefit of the schools. The measure had its origin in Cleveland and a number of Cleveland men led in the fight before the legislature for the bill.

Expenditures of \$10,000 from the school fund of Portland for advertising the bond issue, \$520 for traveling expenses of a school director, and amounts extending into the thousands for expenses of assistant superintendents, school principal and school clerk have recently been declared illegal by the district attorney in an opinion given to the secretary of the taxpayers' league. It is held that money can be paid out, under the law, only for school purposes, that is, all ordinary expenses of the schools, but not excluding advertising of bond issues, employment of a press agent, or traveling expenses of officials to and from interesting meetings.

Detroit, Mich. The platoon system has been extended to seven additional schools this year. The success of the system in Detroit has made it possible to extend its operation much farther than in other cities. Measurement tests of children working under the platoon system show that they have attained as high a standard as those working under the other plan. They have, in addition, received the benefit of the extra training under special teachers.

The increased cost of materials and labor used in the construction of school buildings has made it possible to do only half of what was done before the war, according to Mr. W. R. McCornack, school architect of Cleveland. It is pointed out that buildings erected last year cost about twice as much as the same building in 1915. To overcome the expense, the Cleveland board has resorted to the one-story building. This type can be adapted to the shift plan and the cost of construction is reduced.

The citizens of Winston-Salem, N. C., on October 7th will vote on a bond issue of \$800,000 to be devoted to the erection of four buildings and additions to four existing structures. The city has recently come into possession of three fine sites which have been donated for a school

and playground site and for an auditorium capable of seating several thousand persons.

A recent report of the state educational department of Illinois shows that very satisfactory results have been achieved thru the effort to standardize the one-room schools of the state. Nearly 4,000 of these schools have reached the standard set in building, equipment and teaching during the last ten years and it is felt that excellent results will follow in the districts where new superintendents have taken hold.

The state department offers diplomas and markers to schools which have met the requirements and a superior diploma is given to the school meeting the highest type of one-room building. In addition, one diploma is offered to graded schools. This is to be improved upon with the addition of diplomas for two further types of elementary schools. One will be given to the good, well taught and well equipped smaller system, one to the school with better equipment and more extended courses, and one to the school having the maximum of a modern graded school in equipment, course of study and teachers. The inspections will be conducted by two experts working out of the office of the state superintendent.

The city of Portland, Ore., in June, by a vote of 3,000 to 2,000, voted against a proposition to issue two and one-half million dollars in bonds for school sites and for the erection of new buildings. The general desire of the taxpayers to keep down taxes and the opposition to school bonds, contributed to its defeat.

As a remedy for the condition, the board has contracted for the erection of a number of portable buildings, at a cost of \$2,000 per room. It is estimated that about \$100,000 will be expended for these portable structures.

Adrian, Mich. The board has ordered that the schools be named after the martyred presidents. Two buildings have already received the names of Washington and Jefferson.

Dayton, O. The school year has been extended to ten months, beginning with September 1, 1919, and ending June 18, 1920.



Educators Everywhere Endorse the Miessner

Leading school supervisors of the country enthusiastically declare that the Miessner solves an old, troublesome problem and brings music instruction up to the top notch of effectiveness.

The rate at which Miessner Pianos are being supplied to schools all over the country leaves not a trace of doubt as to whether or not the Miessner answers a long felt need. Already Miessner Pianos are being used in 47 of the 48 states of the union and they are acclaimed a great success wherever they are heard.

The Miessner

"The Little Piano with the Big Tone"

Imagine a piano only 3 feet and 7 inches high, pouring forth a deep, mellow tone with all the brilliance of an expensive grand piano! That is what amazes you when you hear the Miessner.

The teacher can direct the music and easily see the pupils over the top the while she plays the Miessner Piano. Two youngsters can move it with ease from room to room. In short, the

Miessner Piano is "tailored" to fit school use.

Special Free Trial Offer to Schools

The Miessner Piano costs but half as much as the average upright piano. It is sold to schools on an attractive free trial plan we would like to tell you about. Fill in the coupon herein contained, send it in to us, and we will mail you the Miessner Piano catalog and explanation of our School Sales Plan.

Excerpts From a Few of the Many Letters We Have Received

"The Miessner is certainly a wonderful little piano and everybody is more than pleased with it. The children are delighted. It is worth its weight in gold." —Sr. M. Seraphine, Westphalia, Iowa.

"You certainly have made a contribution to the real needs of the public schools in building the Miessner piano." —R. J. Cunningham, Supt. Schools, Bozeman, Mont.

"An order for four more Miessner Pianos has been placed for our schools. I am very well pleased with the pianos and the children love them. There is something about the size that seems to have an added appeal to the child nature." —Nellie L. Glover, Akron, Ohio.

"It is interesting to see a musician sit down to the Miessner Piano and then open his eyes in surprise at the volume the little thing puts forth." —E. L. Rickert, Supt. Schools, Connersville, Ind.

JACKSON PIANO CO.

Chicago Office: Room 23, Auditorium

122 Reed St., Milwaukee, Wis.

COUPON

Jackson Piano Co.,
122 Reed St., Milwaukee, Wis.

Without any obligation on my part, please send me the Miessner catalog and full information about your special offer to schools.

Name
School Position
City State

There is as much difference between seeing a thing and merely hearing about it as there is between visiting the Capitol at Washington or listening to a description of it.



© Underwood & Underwood

Seeing the Whole World is Possible Through the Stereoscope

The Underwood System of

Visual Instruction

provides a short-cut direct method of teaching by

Sense Experience

and does for the eye what the telephone does for the ear

Annihilates Space

The Underwood System comprises a real teaching aid and puts into the hands of the teachers stereographs and lantern slides arranged to meet the hourly needs of the school, without any preparation in advance

Twenty-five Teaching Subjects for Every Grade From Kindergarten to High

Dr. Oliver Wendell Holmes says: "The first effect of looking at a good photograph thru the stereoscope is a surprise such as no painting ever produced. The mind feels its way into the very depth of the picture. The scraggy branches of a tree in the foreground run out at us as if they would scratch our eyes out."

You Can Take Your Class All Over the World

and give them a new, deep, vital interest in their work. You can make their lessons REAL and more than that, retained in vivid memory. You can make your teaching mean what it has never meant before.

All these things are now made possible and practical for any teacher thru the UNDERWOOD SYSTEM of VISUAL INSTRUCTION, the latest and most important educational achievement of the century comprising a pedagogically organized series of

1000 STEREOGRAPHS AND LANTERN SLIDES

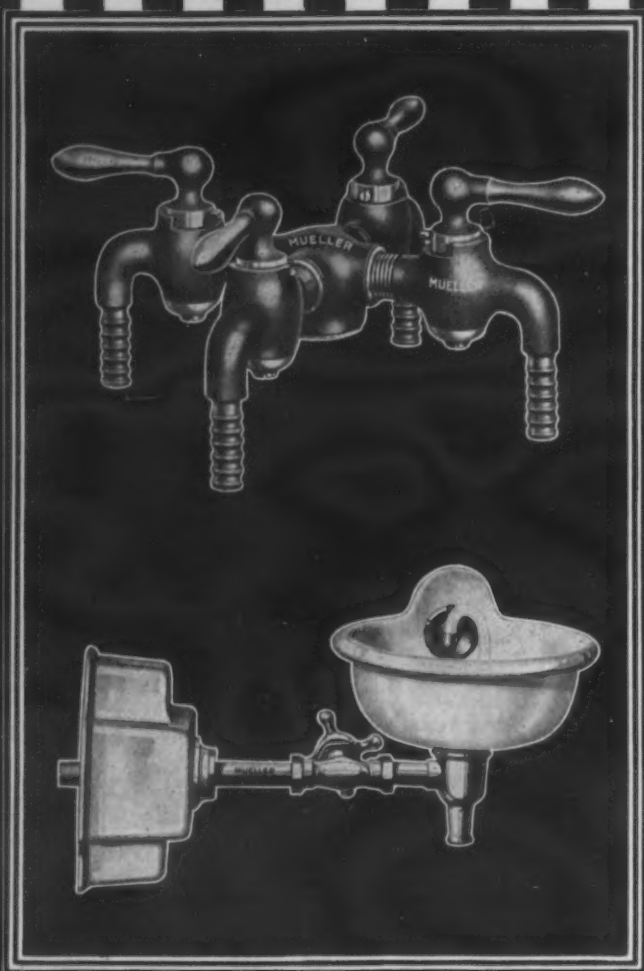
covering the world, edited under the general direction of F. M. McMurry, Ph. D.

List of supplementary school material on request.

Astronomy, Birds, Botany and Floriculture, Entomology, Famous Paintings, Physics, Zoology, Maps, Flags and many others.

Write us about our Free Stereopticon Lectures and Fund Raising Plans for Schools.

UNDERWOOD & UNDERWOOD, Dept. O, 417 Fifth Avenue, New York



MUELLER Equipment For Schools

MUELLER makes a variety of Laboratory Equipment in the line of Bibbs, Cocks, and Fittings — many of them expressly designed for special needs—each a perfect product.

MUELLER Sanitary Drinking Fountains

Made in many styles and sizes—to meet every requirement—they are the last word in modern, healthful drinking apparatus.

Write for descriptive catalog and prices.
Mail orders given immediate attention.

H. MUELLER MFG. CO., Decatur, Ill.

PHONE BELL 153

Water, Plumbing and Gas Brass
Goods and Tools

New York City 145 W. 30th St. Phone Farragut 5397
San Francisco 635 Mission St. Phone Sutter 3577
Sarnia, Ontario, Canada



HIGH SCHOOL, RED BANK, N. J.
E. A. Arend, Architect.

Schools equipped with the Peerless Unit System of Heating and Ventilating are supplied at all times with the right amount of pure fresh air properly distributed thruout each classroom without drafts, and in the cold weather, heated to the required temperature.

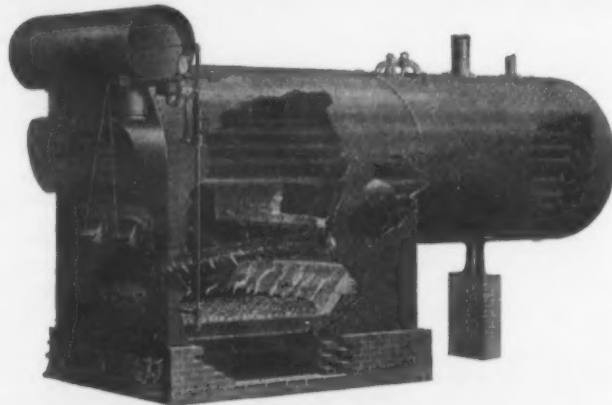
No school in which the Peerless Unit System is installed is ever shut down because of extreme weather conditions. The Peerless System is never out of order. It always does the work that you pay for having it do, and that too, at a surprisingly low cost of operation.

Coal conservation is still one of the most vital tasks of the American People and the problem of fuel saving is solved by the use of the Peerless Unit System of Heating and Ventilating.

Peerless Unit Ventilation Co., Inc.

521-523 West 23rd Street
New York, N. Y.

KEWANEE School Heating Boilers



KEWANEE SMOKELESS FIREBOX BOILER—Portable Type.

KEWANEE Smokeless Firebox Boilers

burn soft coal without smoke.

*A smoking chimney is proof positive that
at least 20% of your coal is being wasted.*

Thousands of **KEWANEE** Boilers installed in schools throughout the United States and Canada are saving coal and giving satisfaction in every way.

Are you going to build a school this year?

Then write for **KEWANEE** "On the Job"—it tells why.

KEWANEE BOILER COMPANY

Kewanee, Illinois



BRANCH OFFICES:
CHICAGO NEW YORK ST. LOUIS KANSAS CITY LOS ANGELES MILWAUKEE MINNEAPOLIS SALT LAKE CITY PITTSBURGH DETROIT DALLAS WASHINGTON CLEVELAND

A New Building?

In selecting or approving the plans of the architects for your new building remember that the heating and ventilating is after all the most important feature.

It is not only **IMPORTANT**, it is **VITAL**.

On the quality and efficiency of your heating and ventilating systems depends:

First--The health of pupils and teachers.

Second--The development of the pupils, mentally and bodily.

Third--The efficiency of the teachers.

Fourth--The economy of your operating expenses.

Coal is higher than ever before and every year it costs a little more.

No system of heating and ventilating is complete and adequate without automatic temperature regulation. *The Johnson System of Heat Control* is dependable. The Johnson Company offers the best grade of apparatus and the highest grade of service.



Johnson Service Company

Milwaukee,

--

Wisconsin

(Offices in all large cities)



BUILDING AND FINANCE

Indianapolis, Ind. The lack of school accommodations has made it necessary to conduct part-time classes.

Muskegon Heights, Mich. The Gary plan has been introduced in the Glendale building as a means of overcoming a shortage of accommodations until a new building can be completed and occupied. The building will be used eight hours of the day by the pupils and teachers of two schools and will house twice as many pupils as under the old plan.

A controversy over the erection of a centralized school, which has been going on in Woodville, O., since 1917 has been renewed with the new school year and plans have been made to carry the case to the court again. In February, 1917, bonds were voted for the building but the erection of the building was delayed by court action on the part of the opponents. After a year's time the district was declared legally centralized but the bond issue contained a technicality. A bond issue was again voted and this time it was found that the funds were insufficient for the needs of the district. The board arranged to let contracts as far as the funds would permit and the building was started but the present court action will again delay the construction.

The Minneapolis board of education has approved recommendations of the sites committee for the expenditure of approximately one-third of the fund which will be available for the purchase of school sites provided the bond sales are approved by the city council. The proposed purchases will reach an estimated expenditure of \$100,000. In addition to the \$250,000 to be derived from the bond issue, there is a hold-over site fund of approximately \$10,000.

The board has also adopted a composite plan for a fireproof grade building which is to be the basis for future school construction. The plan as worked out by the architects of the board, is elastic enough to take care of any kind of school. It will provide for gymnasiums and will take care of every type of special activity carried on in the schools.

In connection with the new standard plan, the board has asked the architects' department to pre-

pare plans for twelve-room buildings based on this model, for the Standish and Agassiz schools, for eight-room buildings with gymnasium for the Minnehaha school, and for additions to two buildings.

Supt. J. H. Beveridge of Omaha, Neb., on September 2nd, submitted his recommendations to the board for a very complete building program covering a period of five years and reaching an estimated cost of \$5,000,000. The new buildings are to be erected in addition to the new High School of Commerce, plans for which have been prepared. The present building program calls for the following structures:

Six new elementary schools to cost about \$757,000; two four-room additions costing \$90,000; auditoriums for two buildings to cost \$53,000; one 34-room junior high school to cost \$550,000; one 32-room building to cost \$500,000; one 12-room building to cost \$200,000 and a 22-room addition to the South High School to cost \$350,000. In addition there is to be a new North High School to cost about \$1,000,000 and an additional appropriation of \$700,000 to \$800,000 is to be made available for the High School of Commerce.

In connection with the outline of the program, Supt. Beveridge gave a detailed report showing the physical condition of the school plant during the past year and indicating the possible growth of the school population for the five-year period covered by the building program.

Cleveland, O. The overcrowded condition of the school buildings has made it necessary to erect sixty portable structures to house 2,400 children for whom no seats have been provided. Shifts and relay classes are to be resorted to for overcoming the remainder of the overflow until new buildings can be completed.

Canton, O. Half-day sessions have been resorted to in fourteen grade rooms in the schools to overcome a serious lack of accommodations. Practically every teacher will have an average of 45 pupils under her charge.

Decatur, Ill. Two junior high schools and an enlarged central high school are the future needs of the city within the next five or ten years, according to Business Manager Arthur Kin-kade. In addition to the new buildings, addi-

tional space has been provided at every school in the city for playgrounds as well as for additions.

As a step toward the erection of new schools it is recommended that nine lots in one block be acquired as sites and that six other lots be purchased for the new Lincoln school.

In the direction of expanding school grounds, the board has begun negotiations for a lot near the new Junior High School.

School Commissioner J. F. Mattes, who spoke at the annual luncheon of the school officials and city officials of Decatur, Ill., in September, urged that schools be opened more freely for the use of the public. Mr. Mattes pointed out that schools and churches should be open more than once or twice a week and gave examples of ways in which they might be used to good advantage in serving the community.

Approximately \$1,000,000 for new school buildings, municipal improvements and county roads have been provided for by the Minnesota state investment board during 1919 upon applications for loans from state trust funds.

Des Moines, Ia., schools opened with one thousand new students in attendance. No new buildings are available for use this fall but a number of additions are available for use during the next year.

Manchester, N. H. A new bond issue will shortly provide for an expenditure of \$690,000. This together with the 28 new buildings already provided, will bring the total building valuation to \$1,675,000.

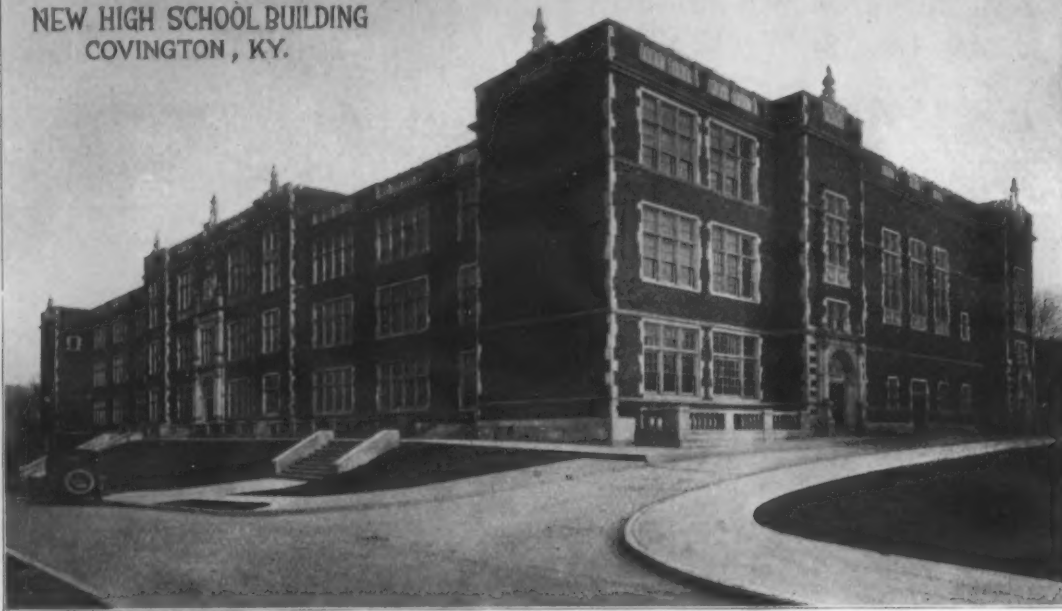
Little Rock, Ark., by a vote of 25 to 1, has voted to raise the school tax levy from ten to twelve mills. The tax was originally fixed at five mills in 1874 and this was later raised to seven mills, and then to ten mills.

The town of West Warwick, R. I., is planning to raise the tuition fee for out of town students. It is estimated that the per capita cost of maintaining the school is at least \$10 in excess of what Warwick pays and the board feels that it is proper to meet the cost in some manner.

The Boston school board has ruled that janitors shall be paid \$3 for each evening the school basement is used. This is an increase of \$1 over the former compensation.

Heat With The COLUMBUS System

NEW HIGH SCHOOL BUILDING
COVINGTON, KY.



HEATED THE COLUMBUS WAY

We Specialize
On Heating
And Ventilating
School Buildings
Auditoriums
Churches And
Lodge Buildings

EXPERT ENGINEERING DEPARTMENT AT YOUR SERVICE

THE COLUMBUS HEATING & VENTILATING CO. HEATING AND VENTILATING ENGINEERS

COLUMBUS, OHIO

PITTSBURGH, PA.

NEW SALARY REVISIONS IN NEW YORK CITY

The New York City board of education, by a vote of 4 to 3, has voted against increased salaries for the superintendents and directors of special departments. The money which is to be applied to the salaries of the lowest paid teachers has been allotted as follows:

Principals of vocational or trade schools—minimum, \$4,000, maximum, \$4,500 in three years.

Teachers of vocational subjects in vocational schools for boys: minimum, \$1,650, maximum, \$3,000 in ten years.

Heads of trade departments in trade schools for girls: \$2,200, \$2,800, seven years.

Teachers of trade mathematics and science in vocational schools: \$1,950, \$3,150, nine years.

Department vocational teachers in trade schools for girls: \$1,500, \$2,200, eight years.

Teachers of vocational or trade subjects in same schools: \$1,300, \$2,000, eight years.

Placement and investigation assistants in same schools: \$1,400, \$1,700, four years.

Clerical and financial assistants in same schools: \$1,000, \$1,700, eight years.

Teachers of cooking and physical training in vocational and trade schools: \$1,650, \$3,000, ten years.

Teachers of non-vocational subjects in vocational schools, and teachers of trade extension classes: Fourth year, \$1,650, \$3,000, thirteen years.

Teacher clerks in vocational schools: \$1,200, \$1,700, six years.

Directors of music, manual training, drawing, physical training, modern languages in high schools; Director of Community Centres, vacation schools and vacation play grounds, Director of evening schools and continuation classes: \$4,000, \$5,000; six years.

Director of speech improvement, and Director of high school organization: \$3,700, \$4,500, five years.

Assistant directors of music, manual training, drawing, physical training and educational hygiene: \$3,500, six years.

Directors of kindergartens, cooking and sewing: \$3,500, \$4,000, six years.

Assistant directors of Kindergarten and sewing: \$2,100, \$3,000, seven years.

Inspectors of ungraded classes: \$2,500, \$3,250, six years.

Assistant inspectors ungraded classes: \$2,200, \$2,950, six years.

Inspectors of the blind and visual aid to instruction: \$2,000, \$3,000, six years.

Inspectors of Public School athletics: \$2,000, \$2,750, six years.

Visiting teachers: \$1,100, \$1,500, five years.

Supervisors of continuation classes: \$2,000, \$2,800, five years.

Inspectors of playground and recreation centres: \$1,800, \$2,500, eight years.

Chief attendance officer: \$3,480, \$3,960, three years.

Division Supervising attendance office: \$2,700, \$3,060, three years.

District Supervising attendance office: \$1,980, \$2,340, three years.

Attendance officers: \$1,200, \$1,800, seven years.

Teacher-Clerks: \$900, \$1,400, six years.

Clerical and visiting assistants in schools for the deaf: \$1,200, \$2,000, nine years.

The board of school estimates of Paterson, N. J., has adopted a salary schedule for the year 1919-20. The new schedule provides that the bonus or special salary shall be a part of the regular salary, twenty per cent of the yearly salary to be given to any teacher, supervisor, principal or office assistant whose salary does not exceed \$1,000. Two hundred dollars may be given to any employe not otherwise provided for, whose salary does not exceed \$1,000. The bonus or special increase was ordered discontinued after June, 1919. Each employe will reach the maximum in ten years. The schedule is as follows:

Elementary Teachers—Kindergarten and temporary certificates, first year \$800, second year \$850 and third year \$900; kindergarten and permanent certificates, fourth year \$950; maximum salary for license two and four, fifth year, \$1,000; license five, sixth year, \$1,050, seventh year \$1,100 and eighth year \$1,150; maximum

salary for license five, ninth year \$1,200; license six, tenth year, \$1,300; maximum in kindergarten and grades one to five, inclusive, \$1,250. Teachers in eighth A or graduating classes may be given \$100 in addition to regular salary during time of assignment to such classes. Head of department, license seven, first year \$1,500, second year \$1,600; third year \$1,700 and fourth year \$1,800.

High Schools—Men, temporary license eleven, first year \$1,400, second year \$1,500 and third year \$1,600; men, permanent license twelve, fourth year, \$1,700, fifth year \$1,800, sixth year \$1,900 and seventh year \$2,050; men, license thirteen, eighth year \$2,200, ninth year \$2,350 and tenth year \$2,500; women, temporary license eight, first year \$1,200, second year \$1,300, and third year \$1,400; women, permanent license nine, fourth year \$1,500 and fifth year \$1,600; women, license ten, sixth year \$1,700 and seventh year \$1,800.

Principals—Primary schools, temporary license seventeen, first year \$1,900, second year \$2,000 and third year \$2,100; principals of primary schools, permanent license eighteen, fourth year, \$2,200, fifth year \$2,300 and sixth year \$2,400; principals of grammar schools, license nineteen, first year, \$2,600, second year \$2,700, third year \$2,800, fourth year \$2,900 and fifth year \$3,100.

Principal of high school—License 22, first year \$3,200, second year \$3,400, third year \$3,600, fourth year \$3,800, fifth year \$4,000 and sixth year \$4,200; principal of manual training, license sixteen, first year \$1,500, second year \$1,600, third year \$1,700 and fourth year \$1,800.

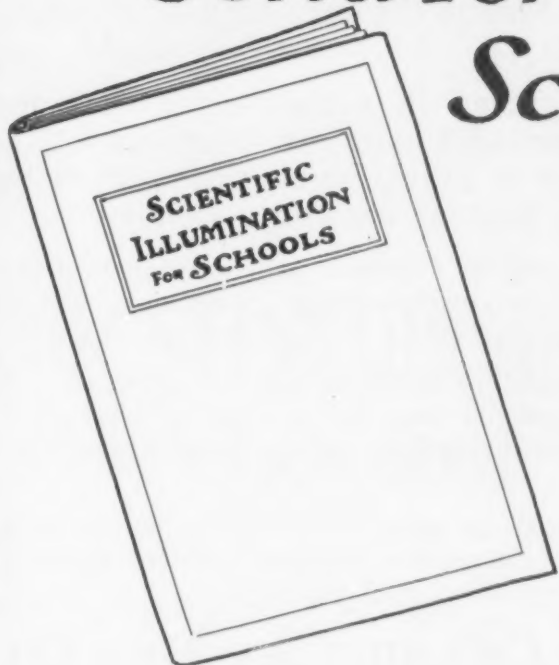
Principal of Disciplinary School—First year, \$1,200; second year, \$1,300; third year, \$1,400; fourth year, \$1,500; fifth year, \$1,600; sixth year, \$1,700; seventh year, \$1,800; ninth year, \$1,900, and tenth year, \$2,000.

Principal of Normal School—License 21, first year, \$3,000; second year, \$3,150; third year, \$3,300; fourth year, \$3,500; fifth year, \$3,700. Assistant principal of normal school, temporary license 20, first year, \$1,900; second year, \$2,000, and third year, \$2,100.

(Concluded on Page 91)



Send for this Free Book on School Illumination



Everyone interested in protecting the eyes of our future citizens, and in lowering illumination costs should have this book.

Not only does it tell how Holophane has developed lighting units that unerringly direct light where needed and in the quantities needed—but it also contains helpful chapters on "Reducing Glare," "Intensities of Illumination," "Changing Over an Old Lighting System," and many other important subjects.

This much needed book, now in its second (revised) edition, is free. Write for your copy.

HOLOPHANE GLASS CO.

Dept. C-15, 340 Madison Avenue, New York

Works: Newark, Ohio



Correct Shades for Schools

TWO things to consider—the quality of the shade, and how it should be placed.

In thousands of schools where Superintendents and Teachers have proper regard for correct airing, and for care of the children's eyes, Oswego Tinted Cambric or Triplex Opaque on the celebrated Hartshorn Rollers have solved the problem, once and for all.

Stewart Hartshorn

Write for samples of Colors 214 and 204 in Tinted Cambric, which have been analyzed by chemists and adopted by School Boards of some of the larger municipalities.

Stewart Hartshorn Co. Oswego Shade Cloth Co.

General Office, 250 Fifth Ave., New York City
Chicago Office, 332 So. Michigan Ave., Chicago

**TOO MUCH
LIGHT ?**

**OR NOT
ENOUGH ?**



WITH ordinary fabric curtains, it's impossible to regulate the light properly. Not so, however, with Aerolux Ventilating Window Shades. Soft, diffused light enters between the linwood splints. So does plenty of fresh air. Yet the glare and heat of the sun are shut out.

Why not have the advantages of these better shades in your school? Proper lighting—proper ventilation. And because Aerolux Shades last longer they are cheapest in the long run. Hang straight. Easily cleaned. Fine, smooth finish. Choice of several beautiful colors to match the woodwork. Efficiency and beauty combined.

Write for full information and catalog—today

THE AEROSHADE CO., 170 Oakland Ave., Waukesha, Wis.

AEROLUX
VENTILATING REG. U.S. PAT. OFF.
WINDOW SHADES

DENZAR means less expense for lamps and current



THIS new and improved light provides more light with less current because it gives you the full illuminating value of the high powered and economical Mazda C lamp, with all blinding glare eliminated.

The light is diffused in a soft, clear radiance which resembles soft sunlight and which is exactly the kind of illumination pronounced by authorities to be best for working efficiency.

One Mazda C lamp in a Denzar will provide better illumination than two or three lamps of ordinary wattage in an old style fixture.

The lamp is completely enclosed and protected from dust, dirt and insects, and the current of cool air continually passing upward around the lamp lengthens its life.

If you are interested in securing better light for your schools, write for the complete Denzar catalog, showing all the different types, sizes and prices.

BEARDSLEE CHANDELIER MFG. CO.

Manufacturers of a Complete Line of Chandeliers for Every Lighting Requirement
219 South Jefferson Street : : Chicago

WATCH THE CHILDREN'S EYES

EYE STRAIN RELIEVED AND CERTAINLY AVOIDED
IF YOUR SCHOOLROOMS ARE EQUIPPED WITH

E L T
EVER - LASTING - TRANSLUCENT

WINDOW SHADES

(superior plied yarn fabric)

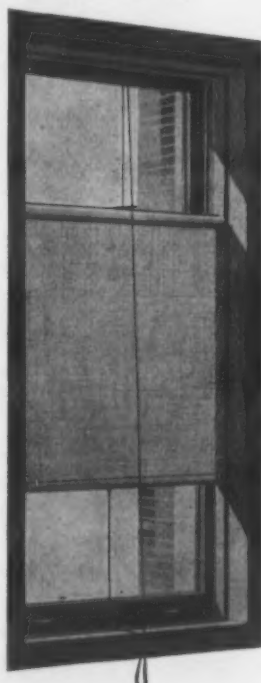
WITH OR WITHOUT

SELF BALANCING
ADJUSTABLE FIXTURES

TRANSLUCENT—
NOT OPAQUE
DULL FINISH—
NO GLARE

If your school supply house does not handle our E L T Shades, write for our folder.

Upon receipt of a set of plans, or a list of window sizes, quotations will be furnished at once.



E. L. T.
SHADE MATERIAL
Mounted on
Self-Balancing Adjustable
Shade Fixtures

THE ORIGINAL

WALGER
ADWING COMPANY
561 W. MONROE ST., CHICAGO

ESTABLISHED
1905

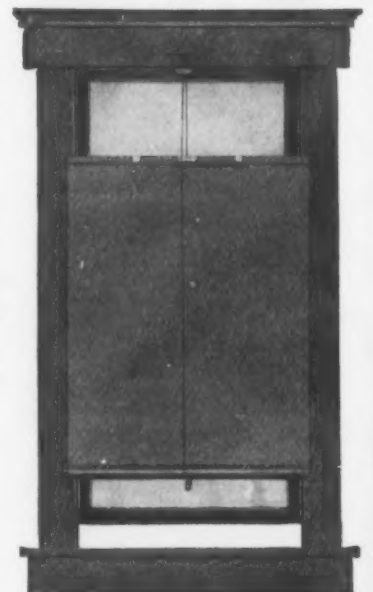
ESTABLISHED
1905

Help Conserve Their Eyesight

The eyes of a single pupil are worth much more than the small cost of all the window shades installed in your school.

Therefore, it is your duty, Mr. Schoolman, to install window shades that permit light and air in the classroom and at the same time prevent the piercing rays of the sun from injuring the eyes of both the pupils and the teacher.

Draper's
Cotton Duck
Adjustable Window
Shades



can be adjusted to suit the conditions in the schoolroom as they actually exist. They can be adjusted in such a way as to shut out the rays of the sun and yet allow a sufficient amount of light and fresh air to come into the classroom.

If you will write us, giving the number and size of Windows in each room, we will be pleased to make suggestions and will quote you on equipping your building. This places you under no obligation to us.

LUTHER O. DRAPER SHADE COMPANY
SPICELAND, INDIANA

THE AMERICAN SYSTEM

HEATING AND VENTILATING

Established by Years
of Satisfaction

THE STANDARD MECHANICAL WARM AIR SYSTEM

OF THE WORLD

AMERICAN FOUNDRY & FURNACE COMPANY
BLOOMINGTON, ILLINOIS

(Concluded from Page 88)

Special Teachers—Elementary schools, cooking, first year, \$950; second year, \$1,050; third year, \$1,150; fourth year, \$1,250; fifth year, \$1,350; sixth year, \$1,450. Shop teachers, first year, \$1,200; second year, \$1,300; third year, \$1,400 and fourth year, \$1,500. Graduates of four-year high school, fifth year, \$1,600; sixth year, \$1,700 and seventh year, \$1,800.

High Schools—Shop teachers, first year, \$1,400; second year, \$1,500; third year, \$1,600; fourth year, \$1,700; fifth year, \$1,800; sixth year, \$1,900 and seventh year, \$2,000. Graduates of college or technical school and exceptional shop teachers, ninth year, \$2,150; tenth year, \$2,300, and eleventh year, \$2,500.

Physical Training—First year, \$900; second year, \$950; third year, \$1,000; fourth year, \$1,050; fifth year, \$1,100; sixth year, \$1,150; seventh year, \$1,200; eighth year, \$1,250; ninth year, \$1,300; tenth year, \$1,400.

Normal School—License fifteen, first year, \$1,200; second year, \$1,300; third year, \$1,400; fourth year, \$1,500; fifth year, \$1,600; sixth year, \$1,700; seventh year, \$1,800. Critic teachers, in addition to elementary school schedule, \$150.

Assistant Supervisors—First year, \$1,300; second year, \$1,400, and third year, \$1,500.

Drawing Teachers—\$100 in addition to schedule.

Kindergarten Teachers—\$100 in addition to schedule.

A report of the state educational department of Illinois on teachers' salaries, shows that 168 men and 680 women are receiving less than \$300 a year; 835 men and 2,720 women from \$300 to \$400; 809 men and 5,771 women from \$400 to \$500; 436 men and 4,436 women from \$500 to \$600; 383 men and 3,189 women from \$600 to \$700. There are 2,631 men and 16,798 women receiving less than \$700 a year, or a total of 19,429 out of 34,597 teachers in the entire state. The average annual salary is below \$400 in six counties.

Salaries for Evening School Employees.

The school board at Milwaukee, Wis., has adopted a salary schedule for teachers, principals

and janitors employed in evening schools during the coming year. The schedule is as follows:

Principals' Salaries based on the average monthly evening attendance—200 or less, \$3.50 per session; 201-250 inclusive, \$4 per session; 251-300, inclusive, \$4.50 per session; 301-350, inclusive, \$5 per session; 351-400, inclusive, \$5.50 per session; 401 and over, \$6 per session; Saturday afternoon entertainments and evening socials, \$5 per session.

Teachers' Salaries—(Afternoons) Class A, \$1.50; Class B, \$1.25; Class C, \$1; Class D, \$.075; Class E, \$.50, and Class F, \$.25. (Evenings) Class A, \$3; Class B, \$2.50; Class C, \$2; Class D, \$1.50; Class E, \$1, and Class F, \$.50. Where the average monthly attendance falls below fifteen, the salary is to be decreased by twenty cents for each number below fifteen, until a minimum attendance of ten is reached, when the class is automatically closed.

Janitors will be paid \$0.75 for attendance at an afternoon session, \$1 for evening sessions, and in addition \$0.50 a day, including evening for Class A room, \$0.25 for each Class B room, and \$0.10 for each Class C room. Class A room includes assembly halls, gymnasiums, swimming pool and all rooms where seats must be removed, chairs brought in and the room rearranged for classwork; Class C, all rooms with an attendance of ten or less; Class B, all rooms not included in A or C, and where corridors are used, the moving back and forth of tables and chairs. Afternoon and evening entertainments, \$2.50, plus \$0.25 for every one hundred chairs moved. Where it is deemed advisable, the regular day janitor will be responsible for the heating of the building, serving until 9 P. M., and a special janitor being delegated to attend to the other janitorial duties. For such service the regular janitor is to receive \$2 per evening.

HIGHER SALARIES IN CINCINNATI

Cincinnati, O. The maximum salary of elementary teachers has been raised to \$1,600 a year and all teachers receiving less than \$1,200 will be raised to that amount on January first. The maximum salary for kindergarten directors and teachers has been fixed at \$900 for college

graduates and \$850 for those without college or university training. The maximum salary for teachers after the first year of service has been fixed at \$1,300.

The maximum salary of elementary principals and directors has been raised to \$3,300.

Teachers in the Indianapolis high schools have been divided into three groups for salary purposes. In group A, salaries run as follows: first year, \$1,000; second, \$1,100; third \$1,200; fourth, \$1,300; fifth, \$1,400; sixth, \$1,500; seventh, \$1,600; eighth, \$1,700.

In Group B, including teachers with from nine to thirteen years' service, the salaries range from \$1,800 to \$2,200. Teachers of fourteen, fifteen and sixteen years are in Group C, with pay from \$2,300 to \$2,500.

In the elementary schools, Group A teachers will draw from \$800 to \$1,100 annually; in Group B, from \$1,200 to \$1,500, and the maximum for group C is \$1,600. Promotions from Group A to B shall be made when a teacher has reached the maximum service of four years and has submitted proof of satisfactory completion of at least nine hours of college or normal work in approved courses and institutions. Promotions from Group B to C shall be made when a teacher has reached the maximum service of eight years and submits proof of the satisfactory completion of one of the following requirements:

- One year (30 credit hours) of college or normal work in approved institutions or courses.
- One summer term (7½ credit hours).
- Professional reading over prescribed course or travel in interests of education.
- Extension work equivalent to (b).
- Research work to the advantage of Indianapolis schools in co-operation with Department of Research on which written report is made.

The credit in hours will be determined on the basis of the value of study. The increase for (a) is \$100; b, c and d, \$25 for each credit up to \$75. The increase for e is to be determined in units of b.

College graduates without experience will receive an advance of two years on the salary schedule after six months of practice teaching.

THE PALMER METHOD SPELLERS

By IDA COE, Pd. M., Asst. Principal, New York Public Schools
CHARLES HARPER, Ph. D., Instructor, New York Public Schools

A series of spellers entirely in fac simile
PALMER METHOD PENMANSHIP for all grades

In the main the ability to spell correctly is called for only when one is engaged in writing. Most recent accurate experiments show that (1) seeing the words is almost three times superior to hearing them spelled; (2) Copying is twice as valuable as oral spelling and six times as valuable as print; (3) Copying from script accompanied by low speech movements is the Most Valuable of All Spelling Drills.

Palmer Penmanship

THROUGH THE PALMER METHOD PLAN TEACHERS ARE TAUGHT BY EASY FASCINATING STAGES how to follow THE LINE OF LEAST RESISTANCE in learning how to teach HAND-WRITING EMBODYING LEGIBILITY, RAPIDITY, EASE AND ENDURANCE. The fifteen-dollar course is FREE TO ANY TEACHER whose pupils have been provided with individual copies of our textbooks. THE ORIGINAL COST of a complete introduction IS SMALL and THE PALMER METHOD MANUALS are so strongly bound that they are frequently in DAILY USE FOR FOUR, FIVE AND SOMETIMES SIX YEARS. The Palmer Method Primary Plan co-ordinates pedagogically and progressively with upper grade development. The scientifically graded lessons for pupils of grades three to eight inclusive are in one book, thus permitting in each grade the necessary review of what has already been covered.

THE PALMER METHOD ORGANIZATION has no competitor in the IMPORTANT WORK OF TEACHING TEACHERS in great numbers the MECHANICS and TRUE PEDAGOGY OF PRACTICAL PENMANSHIP in all grades of public and private schools, and wherever there is need of Penmanship Reformation.

Investigate us closely — visit our offices and see our CRITIC TEACHERS AT WORK, and you will be convinced that we are doing MORE THAN ALL OTHER AGENCIES COMBINED TO HELP REFORM AND MAKE HIGHLY EFFICIENT, THE HAND-WRITING OF A NATION—THE U. S. A.

Address inquiries to nearest office

THE A. N. PALMER COMPANY

30 Irving Place, New York 623 South Wabash Avenue, Chicago, Ill.
120 Boylston Street, Boston, Mass. Widener Building, Philadelphia, Pa.
508 Pittcock Building, Portland, Ore.

Autumn—and Textbook Problems

THAT WE CAN HELP YOU SOLVE

An old field has gained new significance since the War—that of Economics.

Introduction to Economics

by GRAHAM A. LAING, A. M.,
Instructor in Economics and History,
University of California,

is a concise presentation of modern industrial organization with especial reference to American conditions. High School students have here an understandable book, elementary yet comprehensive.

Arithmetic, too, has been clothed in commercialism.

Walsh's Business Arithmetic

by JOHN H. WALSH,
Associate Superintendent of Schools,
New York City,

is the new-era book for the student of the commercial course who must complete in his first high school year the arithmetical requirement. An interwoven story of modern business problems, including those of the home, farm, store, factory, wage earner, etc. It is an interest-compelling work, designed to fit a definite need hitherto unsatisfied.

Send to our nearest office for sample copies.

The Gregg Publishing Company

NEW YORK BOSTON CHICAGO SAN FRANCISCO

Lessons in Democracy

by

Raymond Moley, Ph. D., Associate Professor of
Political Science, University of Minnesota,

and

Huldah Florence Cook, Supervisor of Instruction,
Extension Schools, Akron, Ohio,

presents the essential facts of Americanism in reader form to adults who know only a little English. It is simple but not condescending; comprehensive but not confusing.

Among the topics presented are the following:

The cooperative aspect of labor	Charities
Important episodes in American history	Education
Biographies of eminent Americans	Libraries
Our republican form of government	Amusements
Our national holidays	Methods of securing work
The American Flag	Savings
The geography of the United States	Labor and Capital
The leading facts of American law	Labor unions
Taxation	Political parties
Public Health	Naturalization
	The Constitution
	Lincoln's Gettysburg Address
	The Star Spangled Banner

The Macmillan Company

New York Boston Chicago
Dallas Atlanta San Francisco

Lippincott's

NEW THRIFT AND CONSERVATION
PUBLICATIONS

"FIRST LESSONS IN BUSINESS"

By J. A. Bexall, Ore. Agr. College. Suitable for 8th grade classes and Junior High Schools.....\$.68

"THRIFT AND CONSERVATION"

By Arthur & James F. Chamberlain (Calif.) A splendid teacher's book, showing how, when and where to apply lessons in thrift\$1.40

"HISTORY OF THE THRIFT MOVEMENT IN AMERICA"

By S. W. Strauss (In Press)

"HOME LABOR SAVING DEVICES"

By Rhea Scott. Practical articles for the home and farm to be made in manual training classes.....\$1.00

"THE BUSINESS OF THE HOUSEHOLD"

By C. W. Taber. A text for High Schools and Colleges. Adopted by the States of Utah and Oregon.....\$2.50

"THE INSTRUCTOR, THE MAN AND THE JOB"

By Chas. R. Allen, Federal Board of Education. A book for Vocational teachers and for those training unskilled workers. It represents the pedagogy of industrial education.....\$1.50

J. B. Lippincott Company

E. Washington Sq. 2126 Prairie Ave.
Philadelphia Chicago

NEWEST BOOK^c

THE KENDALL READERS

By CALVIN N. KENDALL

State Commissioner of Education, New Jersey

The material in these books is the result of a careful, deliberate, selective process, extending through many years, by an educator of recognized ability, whose experience is national in character. Careful attention has been given to arrangement and gradation, to grouping and comparing, to drill and review, and to phonetic s.

MODERN ARITHMETIC

By BRUCE M. WATSON and
CHARLES E. WHITE

This new series meets the demands of today and of the future for which pupils are preparing.

GORDON READERS—New Series

By EMMA K. GORDON and
MARIETTA STOCKARD

A method series, without diacritical marks, providing fresh, attractive reading, beautifully illustrated, and well graded. Six books and manual.

D. C. HEATH & CO.

BOSTON

NEW YORK

CHICAGO

A NEW
SPELLING BOOK

Pearson and Suzzallo's
Essentials of Spelling

By HENRY CARR PEARSON, Principal of Horace Mann School, Teachers College, Columbia University, and HENRY SUZZALLO, President of Washington University.

THE vocabulary in this new speller embodies the result of efforts on the part of leading teachers during the past six years to eliminate waste in the teaching of spelling, by scientifically determining the words that children and adults actually use in their writing. It teaches thoroughly the essential words of one's vocabulary, with a minimum of time and effort on the part of teacher and pupil. It is not just "another speller," it is different.

American Book Company

330 East 22nd Street,
CHICAGO, ILL.

New York

Cincinnati

Chicago

Boston

Atlanta

AN EXPERIMENT IN STATE PUBLICATION.

H. S. Shirer, Topeka, Kansas.

Experiment, defined for the purposes of this paper means, "A trial or special observation made to confirm or disprove something."

There can be little question in these days that public ownership, government, state or municipal, is doubtful and the "trials and special observations" have only made more certain the doubt. If I should discover somewhere, a valuable ore deposit, it would be an easy matter with money, men and machinery to block out the contents and determine its value. By laboratory tests I could also discover the method of separation and refining. Then with more men and money, I could build my mill with confidence. That would not be a doubtful experiment—it would be the certain experiment.

This experiment in state publication that I speak of, has had no such tests. It has produced school books at a higher cost than Kansas has been used to paying and if the books are better or worse, they are not the best nor the worst. If they cost more money than under the previous method, it is not startling because public ownership and business methods do not produce as cheaply as private enterprise. Public cost usually would mean private profit on the same basis. What I mean is, that school books as supplied in Kansas today thru state publication at cost, could be supplied by the publishers at a profit at the same cost to pupils. Therefore, the first result of this experiment is a great waste of money. This waste is in the extra pennies the children must pay for their books and in the capital invested in the plant.

I am emphasizing the money loss because the whole scheme in Kansas was promoted on this basis. The legislature was shown by the promoters how a great saving could be made, and by the way, the very people who could show the legislature how this thing could be done, have never demonstrated financial ability sufficient to put them conspicuously on the tax lists.

It is only necessary when this experiment is discussed during a session of our state legisla-

ture for certain political papers to shout, "book trust," in order to stampede the entire body. It has given a new meaning to our morals and a wonderful impetus to our progress in the direction of the woods. But I take it the textbook business is not wholly a business of dollars and cents, however important these dollars and cents may be.

The textbook has had its greatest development and growth in the United States and this development has been fostered by the publishers. Any casual perusal of the history of the textbook, will lead us to the conclusion—that no state has developed any single book, and experiments in state publication have in no way benefited the public schools. Indeed the basic texts now published in Kansas, are so jealously guarded by law and penalty, that a teacher dare not ask Johnny to purchase a supplementary primer or reader, and this narrowness which might better be called smallness, is a black scar on our educational system under state publication.

I wonder when the people will wake up to the fact that there is but one time in a boy's life when he can be greatly and permanently benefited by good books—but a short period in his early school life when a taste for good books and good reading may be easily acquired and I wonder if we will ever discover why the boy is so ready to leave the farm and go to the city and town.

What about the published results of the Kansas experiment? It is possible to read the report of the State Printer as presented to the 1919 legislature and learn that the state has the best books she has ever had and that there is a saving of some forty per cent to the pupils. Or a criticism of that same report by the writer may be read to show that the books are not better. In fact, a part of the list has not been changed for state publication, and you can also learn that there has been no saving to the pupils, but a very decided added cost and that a further advance in cost may confidently be expected, and any change in texts will result in a very marked advance to the pupil.

These two statements concerning the experiment were widely published by political papers,

circulating thru Kansas and beyond. The statement by the state printer going out thru various political sheets, farm journals and special magazines, free of cost to the state for the benefit of the people. The criticism of this report was published in two Topeka papers at advertising rates, not acceptable as pure reading matter and such information not wanted for the dear people. No answer was made to this criticism and none was needed. Indeed it is fairly clear that there was no answer; it was a sum in arithmetic and so exact a science admits of no discussion at certain points.

The machinery of state publication in Kansas is vested in a School Book Commission and this Commission has very naturally become a state publication Commission. Recently our governor reappointed two members on the Commission solely and admittedly because they were unalterably for any book, so it was printed by the state. If school books and politics are complementary, then there is a happy combination in Kansas.

State publication is a fact in Kansas today because the publishers have decided to promote the idea with help to the state in the rental of plates. As a proposition from manuscript to school book, the scheme is a flat failure and only by the grace of the rented plates has it been able to carry on. Just where a publisher can expect to light if this scheme should obtain in a considerable number of states, I cannot conceive. What would be the incentive to further development of the textbook, if the only object were to rent the plates to state publication plants on a meager royalty? Can you expect an active authorship? Can you maintain a competent editorial department? Can you in any way test out your texts if such a scheme progresses further? It is time to stop and think this thing out before you all become government employees and your intensive business interests are quieted by the state publication sedative.

Now what is to be the outcome of this experiment? It will go on for years, probably many years, for the forces behind it will try to keep the mill grinding whatever the grist. It will never be a money saver and it never should have been started with that idea. There was

(Concluded on Page 95)

THE PALMER METHOD SPELLERS

By IDA COE, Pd. M., Asst. Principal, New York Public Schools
CHARLES HARPER, Ph. D., Instructor, New York Public Schools

A series of spellers entirely in fac simile
PALMER METHOD PENMANSHIP for all grades

In the main the ability to spell correctly is called for only when one is engaged in writing. Most recent accurate experiments show that (1) seeing the words is almost three times superior to hearing them spelled; (2) Copying is twice as valuable as oral spelling and six times as valuable as print; (3) Copying from script accompanied by low speech movements is the Most Valuable of All Spelling Drills.

Palmer Penmanship

THROUGH THE PALMER METHOD PLAN TEACHERS ARE TAUGHT BY EASY FASCINATING STAGES how to follow THE LINE OF LEAST RESISTANCE in learning how to teach HAND-WRITING EMBODYING LEGIBILITY, RAPIDITY, EASE AND ENDURANCE. The fifteen-dollar course is FREE TO ANY TEACHER whose pupils have been provided with individual copies of our textbooks. THE ORIGINAL COST of a complete introduction IS SMALL and THE PALMER METHOD MANUALS are so strongly bound that they are frequently in DAILY USE FOR FOUR, FIVE AND SOMETIMES SIX YEARS. The Palmer Method Primary Plan co-ordinates pedagogically and progressively with upper grade development. The scientifically graded lessons for pupils of grades three to eight inclusive are in one book, thus permitting in each grade the necessary review of what has already been covered.

THE PALMER METHOD ORGANIZATION has no competitor in the IMPORTANT WORK OF TEACHING TEACHERS in great numbers the MECHANICS and TRUE PEDAGOGY OF PRACTICAL PENMANSHIP in all grades of public and private schools, and wherever there is need of Penmanship Reformation.

Investigate us closely — visit our offices and see our CRITIC TEACHERS AT WORK, and you will be convinced that we are doing MORE THAN ALL OTHER AGENCIES COMBINED TO HELP REFORM AND MAKE HIGHLY EFFICIENT, THE HAND-WRITING OF A NATION—THE U. S. A.

Address inquiries to nearest office

THE A. N. PALMER COMPANY

30 Irving Place, New York 623 South Wabash Avenue, Chicago, Ill.
120 Boylston Street, Boston, Mass. Widener Building, Philadelphia, Pa.
508 Pittock Building, Portland, Ore.

Autumn—and Textbook Problems

THAT WE CAN HELP YOU SOLVE

An old field has gained new significance since the War—that of Economics.

Introduction to Economics

by GRAHAM A. LAING, A. M.,
Instructor in Economics and History,
University of California,

is a concise presentation of modern industrial organization with especial reference to American conditions. High School students have here an understandable book, elementary yet comprehensive.

Arithmetic, too, has been clothed in commercialism.

Walsh's Business Arithmetic

by JOHN H. WALSH,
Associate Superintendent of Schools,
New York City,

is the new-era book for the student of the commercial course who must complete in his first high school year the arithmetical requirement. An interwoven story of modern business problems, including those of the home, farm, store, factory, wage earner, etc. It is an interest-compelling work, designed to fit a definite need hitherto unsatisfied.

Send to our nearest office for sample copies.

The Gregg Publishing Company

NEW YORK BOSTON CHICAGO SAN FRANCISCO

Lessons in Democracy

by

Raymond Moley, Ph. D., Associate Professor of
Political Science, University of Minnesota,

and

Huldah Florence Cook, Supervisor of Instruction,
Extension Schools, Akron, Ohio,

presents the essential facts of Americanism in reader form to adults who know only a little English. It is simple but not condescending; comprehensive but not confusing.

Among the topics presented are the following:

The cooperative aspect of labor	Charities
Important episodes in American history	Education
Biographies of eminent Americans	Libraries
Our republican form of government	Amusements
Our national holidays	Methods of securing work
The American Flag	Savings
The geography of the United States	Labor and Capital
The leading facts of American law	Labor unions
Taxation	Political parties
Public Health	Naturalization
	The Constitution
	Lincoln's Gettysburg Address
	The Star Spangled Banner

The Macmillan Company

New York Boston Chicago
Dallas Atlanta San Francisco

Lippincott's

NEW THRIFT AND CONSERVATION
PUBLICATIONS

"FIRST LESSONS IN BUSINESS"

By J. A. Bexall, Ore. Agr. College. Suitable for 8th grade classes and Junior High Schools.....\$.68

"THRIFT AND CONSERVATION"

By Arthur & James F. Chamberlain (Calif.) A splendid teacher's book, showing how, when and where to apply lessons in thrift\$1.40

"HISTORY OF THE THRIFT MOVEMENT IN AMERICA"

By S. W. Strauss (In Press)

"HOME LABOR SAVING DEVICES"

By Rhea Scott. Practical articles for the home and farm to be made in manual training classes.....\$1.00

"THE BUSINESS OF THE HOUSEHOLD"

By C. W. Taber. A text for High Schools and Colleges. Adopted by the States of Utah and Oregon.....\$2.50

"THE INSTRUCTOR, THE MAN AND THE JOB"

By Chas. R. Allen, Federal Board of Education. A book for Vocational teachers and for those training unskilled workers. It represents the pedagogy of industrial education.....\$1.50

J. B. Lippincott Company

E. Washington Sq., 2126 Prairie Ave.
Philadelphia Chicago

NEWEST BOOKS

THE KENDALL READERS

By CALVIN N. KENDALL

State Commissioner of Education, New Jersey

The material in these books is the result of a careful, deliberate, selective process, extending through many years, by an educator of recognized ability, whose experience is national in character. Careful attention has been given to arrangement and gradation, to grouping and comparing, to drill and review, and to phonetics.

MODERN ARITHMETIC

By BRUCE M. WATSON and
CHARLES E. WHITE

This new series meets the demands of today and of the future for which pupils are preparing.

GORDON READERS—New Series

By EMMA K. GORDON and
MARIETTA STOCKARD

A method series, without diacritical marks, providing fresh, attractive reading, beautifully illustrated, and well graded. Six books and manual.

D. C. HEATH & CO.

BOSTON

NEW YORK

CHICAGO

A NEW
SPELLING BOOK

Pearson and Suzzallo's
Essentials of Spelling

By HENRY CARR PEARSON, Principal of Horace Mann School, Teachers College, Columbia University, and HENRY SUZZALLO, President of Washington University.

THE vocabulary in this new speller embodies the result of efforts on the part of leading teachers during the past six years to eliminate waste in the teaching of spelling, by scientifically determining the words that children and adults actually use in their writing. It teaches thoroughly the essential words of one's vocabulary, with a minimum of time and effort on the part of teacher and pupil. It is not just "another speller," it is different.

American Book Company

330 East 22nd Street,
CHICAGO, ILL.

New York

Cincinnati

Chicago

Boston

Atlanta

AN EXPERIMENT IN STATE PUBLICATION.

H. S. Shirer, Topeka, Kansas.

Experiment, defined for the purposes of this paper means, "A trial or special observation made to confirm or disprove something."

There can be little question in these days that public ownership, government, state or municipal, is doubtful and the "trials and special observations" have only made more certain the doubt. If I should discover somewhere, a valuable ore deposit, it would be an easy matter with money, men and machinery to block out the contents and determine its value. By laboratory tests I could also discover the method of separation and refining. Then with more men and money, I could build my mill with confidence. That would not be a doubtful experiment—it would be the certain experiment.

This experiment in state publication that I speak of, has had no such tests. It has produced school books at a higher cost than Kansas has been used to paying and if the books are better or worse, they are not the best nor the worst. If they cost more money than under the previous method, it is not startling because public ownership and business methods do not produce as cheaply as private enterprise. Public cost usually would mean private profit on the same basis. What I mean is, that school books as supplied in Kansas today thru state publication at cost, could be supplied by the publishers at a profit at the same cost to pupils. Therefore, the first result of this experiment is a great waste of money. This waste is in the extra pennies the children must pay for their books and in the capital invested in the plant.

I am emphasizing the money loss because the whole scheme in Kansas was promoted on this basis. The legislature was shown by the promoters how a great saving could be made, and by the way, the very people who could show the legislature how this thing could be done, have never demonstrated financial ability sufficient to put them conspicuously on the tax lists.

It is only necessary when this experiment is discussed during a session of our state legisla-

ture for certain political papers to shout, "book trust," in order to stampede the entire body. It has given a new meaning to our morals and a wonderful impetus to our progress in the direction of the woods. But I take it the textbook business is not wholly a business of dollars and cents, however important these dollars and cents may be.

The textbook has had its greatest development and growth in the United States and this development has been fostered by the publishers. Any casual perusal of the history of the textbook, will lead us to the conclusion—that no state has developed any single book, and experiments in state publication have in no way benefited the public schools. Indeed the basic texts now published in Kansas, are so jealously guarded by law and penalty, that a teacher dare not ask Johnny to purchase a supplementary primer or reader, and this narrowness which might better be called smallness, is a black scar on our educational system under state publication.

I wonder when the people will wake up to the fact that there is but one time in a boy's life when he can be greatly and permanently benefited by good books—but a short period in his early school life when a taste for good books and good reading may be easily acquired and I wonder if we will ever discover why the boy is so ready to leave the farm and go to the city and town.

What about the published results of the Kansas experiment? It is possible to read the report of the State Printer as presented to the 1919 legislature and learn that the state has the best books she has ever had and that there is a saving of some forty per cent to the pupils. Or a criticism of that same report by the writer may be read to show that the books are not better. In fact, a part of the list has not been changed for state publication, and you can also learn that there has been no saving to the pupils, but a very decided added cost and that a further advance in cost may confidently be expected, and any change in texts will result in a very marked advance to the pupil.

These two statements concerning the experiment were widely published by political papers,

circulating thru Kansas and beyond. The statement by the state printer going out thru various political sheets, farm journals and special magazines, free of cost to the state for the benefit of the people. The criticism of this report was published in two Topeka papers at advertising rates, not acceptable as pure reading matter and such information not wanted for the dear people. No answer was made to this criticism and none was needed. Indeed it is fairly clear that there was no answer; it was a sum in arithmetic and so exact a science admits of no discussion at certain points.

The machinery of state publication in Kansas is vested in a School Book Commission and this Commission has very naturally become a state publication Commission. Recently our governor reappointed two members on the Commission solely and admittedly because they were unalterably for any book, so it was printed by the state. If school books and politics are complementary, then there is a happy combination in Kansas.

State publication is a fact in Kansas today because the publishers have decided to promote the idea with help to the state in the rental of plates. As a proposition from manuscript to school book, the scheme is a flat failure and only by the grace of the rented plates has it been able to carry on. Just where a publisher can expect to light if this scheme should obtain in a considerable number of states, I cannot conceive. What would be the incentive to further development of the textbook, if the only object were to rent the plates to state publication plants on a meager royalty? Can you expect an active authorship? Can you maintain a competent editorial department? Can you in any way test out your texts if such a scheme progresses further? It is time to stop and think this thing out before you all become government employees and your intensive business interests are quieted by the state publication sedative.

Now what is to be the outcome of this experiment? It will go on for years, probably many years, for the forces behind it will try to keep the mill grinding whatever the grist. It will never be a money saver and it never should have been started with that idea. There was

(Concluded on Page 95)

IMPORTANT ANNOUNCEMENT

An Extended Revision of Rocheleau's Geography of
COMMERCE AND INDUSTRY
 Has Just Been Made

STATEMENT TO THOSE NOW USING THIS TEXT BOOK

The subject matter of a book like the "Geography of Commerce and Industry," made up largely of information and statistics regarding the production and consumption of the world, must be kept as nearly up to date as possible.

We have just published a complete revised edition brought up to date and with many new illustrations.

South America, which now means so much more to us commercially than ever before, is given special attention in the way of illustrations.

You will want this new edition. Over one hundred changes have been made.

TO THOSE NOT YET USING THIS VOLUME**Do Your Pupils Know**

1. What proportion of the land and of the earth is inhabitable?
2. How wheat, corn, cotton and other great farm products are grown, marketed, and used?
3. How gold, silver, iron, coal and petroleum are mined and shipped, and their respective relations to the industrial and commercial life of the United States and of the world?
4. Of the worth and dignity of labor?
5. Why some products are more valuable than others?
6. What proportion of the world's supply of wheat, cotton, cattle, hogs, lumber, iron, copper, coal and manufactures are produced by United States?
7. How a bank does business? What a clearing house is? How remittances are made, and the relation of money to commerce and industry?
8. Why the great cities of the world are located where they are?

These and many other questions of equal importance are clearly and fully answered in

"GEOGRAPHY OF COMMERCE AND INDUSTRY"
 Over 100 Illustrations. 8vo. 440 pages. Cloth. Mailing Price, \$1.25

YOUR PUPILS SHOULD BE SUPPLIED
 WITH COPIES OF THIS POPULAR TEXT

EDUCATIONAL PUBLISHING COMPANY

2457 Prairie Avenue 50 Bromfield Street 18 E. 17th Street 717 Market Street
 CHICAGO BOSTON NEW YORK SAN FRANCISCO

WARD READING—A REVISED EDITION

UNCHANGED as to METHOD
 NEW as to TEXT and ILLUSTRATIONS

The original "Ward Method" has been kept intact; the same sight words and the same phonics used in the old books, and in practically the same order.

The text, however, has been almost entirely rewritten. The stories and conversations are presented from the child's viewpoint and are full of life and action. The material has been enriched by the early introduction of folk stories, fables, and other childhood favorites.

SILVER, BURDETT & COMPANY

BOSTON NEW YORK CHICAGO SAN FRANCISCO

Vocational Science

Practically every trade school of importance now gives the student training in the technical knowledge related to his trade, as the really skilled worker must be familiar with the reasons underlying the various operations which he performs.

With this end in view W. H. Dooley, in charge of Navy Yard Continuation School for New York Board of Education, has written "Vocational Science for Metal Workers" and "Vocational Science for Wood Workers." These books will be available early in August.

Examination Copies Will Be Sent Upon Request

The Ronald Press Company

TEXT BOOK DEPARTMENT

20 Vesey Street

New York City

Strayer-Engelhardt Record Card Series

A complete series of Record Cards which meet every requirement of the Report of the N. E. A. on Uniform Records and Reports, and in addition provides for further essential information.

Admission, Discharge and Promotion Card
 Superintendent's Record Card
 Office Record Card
 Transfer Cards
 Transfer Report Card
 Pupils' Report Card
 Physical Record Card
 Teachers' Record
 Pupils' Registration Card
 Dental Card
 Permanent Census Card
 Elementary School Record Card,
 Superintendent's Office

Elementary School Record Card
 Principal's Office
 High School Record Card, Superintendent's Office
 High School Record Card, Principal's Office
 High School Registration Card
 High School Program Card
 Residence Card
 Elementary Attendance and Scholarship Record (Paper)
 Teacher's Application Blank (Paper)
 Census Enumerator's Sheet
 Paper

Elementary Principals' Record Book
(Loose Leaf)**Age-Grade Progress Table****Age-Grade Computation Table****C. F. WILLIAMS & SON, INC.**

Fred A. Williams, Treas.

36 Beaver Street

Albany, N. Y.

The series that trains pupils in silent reading

The Boys' and Girls' Readers

By Emma Miller Bolenius

With Teacher's Manual on
 SILENT and ORAL READING

A series of basal readers for the fourth, fifth, and sixth grades. It is especially planned to train children in silent reading, and at the same time to emphasize oral reading for its social and interpretative value. The editor has succeeded in bringing her own personal touch into the study equipment. She makes reading a delight for both pupil and teacher. Ready in October.

4 Park Street
 Boston

Houghton Mifflin Company

New York
 Chicago

Revised Editions of Aldine Reading

The revision of the Aldine Readers has been made in the light of the most modern, most up-to-date psychology and pedagogy, retaining all the best features of previous editions and adding new, attractive, scientific features which cannot fail to appeal to the discriminating, progressive teacher. The series is now complete through the first five years under the following titles:

PRIMER, Revised Edition 1916
 BOOK ONE, Revised Edition 1918
 BOOK TWO, Revised Edition 1918
 BOOK THREE, Revised Edition 1918, Pupil's Edition
 BOOK THREE, Revised Edition 1918, Teacher's Edition
 BOOK FOUR, Revised Edition 1919, Pupil's Edition
 BOOK FOUR, Revised Edition 1919, Teacher's Edition
 BOOK FIVE, Revised Edition 1919, Pupil's Edition
 BOOK FIVE, Revised Edition 1919, Teacher's Edition

LEARNING TO RE A MANUAL FOR TEACHERS,
Revised Edition 1918

The Revised Manual is more extended and comprehensive than the old edition, and takes up in more detail the lessons in Book One and Book Two, giving suggestions which are invaluable to the inexperienced. While the giving suggestions which are invaluable to the inexperienced. While the giving suggestions which are invaluable to the inexperienced. While the giving suggestions which are invaluable to the inexperienced. While the giving suggestions which are invaluable to the inexperienced.

NEWSON & COMPANY

73 FIFTH AVENUE

623 SOUTH WABASH AVENUE

NEW YORK

CHICAGO

New Books for Junior High Schools

Field's Readings from English and American Literature

An elementary course in literature that will interest young pupils and that will furnish a comprehensive introduction to their later study.

Wentworth-Smith-Brown's Junior High School Mathematics

Book I Book II Book III

An unexcelled practical three-book course prepared especially to meet the peculiar needs of the junior high school.

Fisher's Industries and Resources of the United States

A vivid picture of the more important industries of the United States in which the author points out their dependence on our resources, and hence the necessity of conserving our resources.



GINN AND COMPANY

2301 Prairie Avenue

Chicago, Ill.

Industrial Art Text Books

A Series of Text Books for Children

By Bonnie E. Snow and Hugo B. Froehlich

- I. **The Industrial Art Text Books are Practical**
They relate the Art (Drawing) in the Elementary School, to the life of the child and the community.
- II. **The Industrial Art Text Books are Pedagogical**
They give the child an opportunity to work out his problems for himself; thus educating him through his own mental activity—not through the mental activity of the teacher.
- III. **The Industrial Art Text Books are Usable**
They are NOW USED successfully by hundreds of thousands of children.

Children and parents become enthusiastic about them. Are you not interested in introducing them into your schools this year?

Industrial Art Text Books are Published in Two Forms

For City Schools,

Regular Edition in Eight Parts.

For Rural and Village Schools,

Shorter Course in Four Books.

THE A. S. BARNES COMPANY

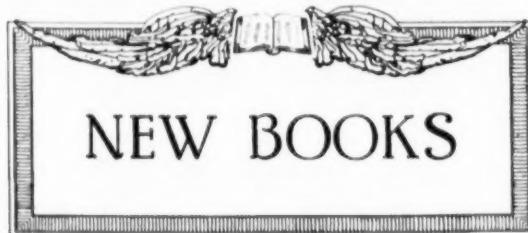
30 IRVING PLACE
NEW YORK

1922 CALUMET AVENUE
CHICAGO

(Concluded from page 93)

nothing to save in the beginning. The laboratory work was neglected—there were no values in the proposition that could be discovered by proper test. It is useless now to try to keep the proposition at par by boosting the assets with a lead pencil. It may fool the people for a time, but by and by they will refuse to meet the assessment and then the explosion will take place, and some of us can chuckle and say, "I told you so." But I do not want you fellows to chuckle who are feeding the hungry beast with your surplus of dry fodder. Promote your own proposition. If it has no go in it on a safe educational and business basis, then do not shunt it off on Kansas and cry, "good riddance." The specter will rise up to smite you when the day of judgment arrives.

Now let me summarize and close—state publication never had a reason for its existence in Kansas. It has added nothing, absolutely nothing of educational value. It has been expensive to the pupils and taxpayers without hope of relief. It curbs the ideals of teachers and arbitrarily points out the rut in which they must travel. The law so guards the state published texts with rules and regulations, that pupils in our rural schools have little chance to see really high class and artistic books. It is the product of thoughtless thinkers and moneyless financiers aggravated by a personal political press.



NEW BOOKS

Applied Arithmetic.

Book I. By J. H. Lennes and Frances Jenkins. Cloth, 283 pages. J. B. Lippincott Co., Philadelphia, Pa.

This is the first volume of a three-book series and is intended to furnish the minimum course

for grades two, three and four. The authors have built up the body of the work during a period of years in which they have tried out the principles underlying each of the sections, and have used the problems and the special devices.

The book clearly bears out its title; it is applied arithmetic in the best sense. The material is taken from the common experience and interests of children, and it is evident that care has been taken to emphasize only these experiences and interests which are common to American children. Thus, manual training experiences are avoided because of the lack of construction work in many schools, and strictly urban and relatively special rural interests are omitted for an obvious reason. Number games, oral and written exercises, are closely tied up with the child's play in the home and at school, and later with his little, growing responsibilities and with those elementary facts of work and life with which he comes into constant contact. Number facts are impressed by a wide variety of unique devices that cannot fail to hold children and that constantly take off the unpleasant edge from the purely drill material that every arithmetic must contain. Use has been made of all recent researches into the difficulties of number combinations and full value has been given to recommendations for economy of time. The book is fully illustrated and the pictures have an artistic as well as a purely arithmetical appeal.

Plant Production.

By Ransom A. Moore and Charles P. Halligan. Cloth, 428 pages. Price, \$1.44. American Book Co., New York, Chicago, Boston.

This book approaches the subject from the standpoint of productive school work as required by the Smith-Hughes Law. The authors hold rightly that vocational education shall result in skill and in a working knowledge of the principles of occupations and of the related sciences, which combined will make the student a successful workman. The present book presents the facts of agronomy and horticulture to produce farmers who not only understand the principles of the subject and are skilled in the procedure of growing farm crops but who also know

the underlying reasons and natural laws so that they can act with judgment and foresight.

The treatment of the subject is simple and clear and not essentially different from other earlier works. The underlying vocational purpose of the authors and of the classwork which the book is to guide, may be credited with some interesting additions of practical topics and with the very useful exercises and home projects which close each chapter. Part I takes up soils and plants and then in succession the common grains, grasses, legumes and other field crops. Part II treats the elements of fruit propagation and then describes in detail facts and principles of fruit gardening and orcharding. The special methods of handling the ordinary stone and bush fruits is limited to those commonly grown in the United States.

The book is simple enough for the advanced classes in junior high schools and will be found valuable in advanced high school classes of strictly rural character.

Social Games and Group Dances.

By J. C. Elsom and Blanche M. Trilling. Cloth, 258 pages. Price, \$1.75, net. J. B. Lippincott Co., Philadelphia, Pa.

The contents of this book are grouped under such headings as "Social Mixers and Acquaintance Games, Active Games, Parlor and House Party Games, Games with Pencil and Paper, Stunts, Group Dances, and Singing Games and Dances Especially Adapted to Children."

They have been gathered as a result of some years of experience in conducting social games and group dances for adults and children under widely varying circumstances.

The authors believe that games and other social activities should be full of action and humorous and dramatic in situation in order to gain the greatest benefits in the way of wholesome physical exercise and happy mental and emotional diversion. They have collected the material from a great variety of sources and have interspersed original games and unique adaptations. For singing games the piano accompaniment is added to the words and for the dances, diagrams as well as explanations of the steps and movements are presented. The book is practical.

(Continued on Page 97)

New York Board of Education buys New Premier Pathescopes after exhaustive tests and comparisons

Their *Technical Engineer* made oscillograph records of the flicker in various prominent projectors. No other approached the results of the

New Premier Pathescope Flickerless Safety Standard Projector

Their *Economy Committee* selected the *Pathescope Educational Film Service* because it afforded the largest assortment of *available* Educational Films for the least expenditure.



NEW PREMIER PATHESCOPE
with 4-Ampere Lamp, Direct Motor Rewind
and Weston Voltmeter. Pictures up to 12
feet wide at any distance up to 75 feet.

RESULTS: Nearly one-hundred Public Schools in New York equipped with Pathescopes—Four years of continuous Pathescope Film Service—Both at minimum cost.

What the greatest city in the world selects, after careful investigation, can be safely adopted by every other Public and Private School in the country.

Machine and Films inspected by Underwriters' Laboratories, Inc., and labeled "Enclosing Booth not Required." No licensed operator, nor insurance restrictions.

The Pathescope Co. of America, Inc.

Suite 1807, Aeolian Hall
New York

"McIntosh Lanterns are Honest Lanterns"

"Let's Go!"

This famous battle cry started with the marines. It spread like wild fire thru the entire A. E. F. It hit other units and is known all over the world. But it is characteristically American.

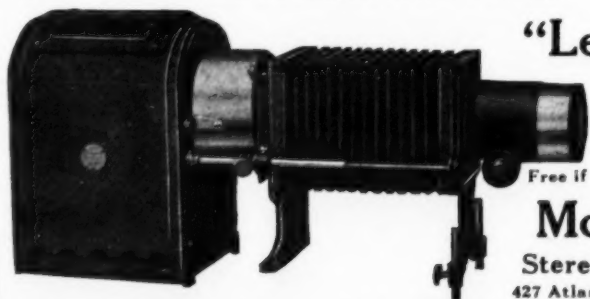
For three years, school building has been held up, school funds lying idle, school progress impeded.

Now however, school boards all over the United States and Canada are realizing that our building program is \$800,000,000 behind; that our pupils needs are greater than ever, and are mobilizing to meet the situation. "Let's Go!"

It is the spirit of education, whose need is more than ever emphasized.

With McIntosh educational slides and an Automatic Sciop-ticon in the classroom to show them, your classes and teachers can go faster and further than ever.

No subject but can be taught better visually.



"Let's Go"

Catalog
A Agriculture
E Geography
H History

Free if you're interested

McIntosh
Stereopticon Co.
427 Atlas Block Chicago

Automatic Sciop-ticon, with high power Mazda Lamp
and Automatic slide changes \$48.00

Other Lanterns \$36.00 and up.

Motiograph De Luxe

Unexcelled for School Purposes



Motiograph's simplicity and ease of operation, together with high class material used in the manufacture of parts, such as the genuine steel gears, sliding disc connection for framer, etc., make it a machine which will last for years.

For Perfect Projection, Use the Motiograph
(Will take all standard size films)

Write for Motiograph Literature.

THE ENTERPRISE OPTICAL MFG. COMPANY
564 W. RANDOLPH ST. : : CHICAGO, ILL.

ANNOUNCEMENT OF NEW MAPS FINCH ECONOMIC GEOGRAPHY SERIES

BY V. C. FINCH, DEPARTMENT OF GEOGRAPHY, UNIVERSITY OF WISCONSIN

10 Large Plates in colors, size 50x38 in.

Containing a total of thirty-four maps

NOW IN PREPARATION. READY SOON.

This new series of maps is especially designed to meet the insistent demand for accurate, illustrative material for the study of the economic geography of the United States. The series of thirty-four maps covers agricultural, mineral, industrial, population, transportation, and climatic phases of American economic geography.

These maps have several unique features. The distribution of products and industries is shown by a combined dot and shading system which gives both the general distribution and the relative amount of the product with respect to area. Each product and industry is shown in its physiographic setting by means of a topographic background in subdued color.

The Finch Economic Maps are made clearly visible at ordinary room distance by carefully weighted boundary lines. Confusion of products is avoided by devoting a map to each important product. In certain cases where areas of production do not conflict, two or more products are shown on the same map by means of clearly distinguishable colors. The teaching value of the product maps is reinforced by diagrams or graphs showing the rank of the leading states and countries.

The following list suggests studies where these new maps will be found very helpful:

COMMERCIAL AND INDUSTRIAL GEOGRAPHY	POLITICAL ECONOMY AGRICULTURE
GENERAL GEOGRAPHY	HISTORY

PUBLISHED BY

A. J. NYSTROM & Co.
U.S. AGENTS FOR W. & A. K. JOHNSTON
MAPS · GLOBES · CHARTS
2249-53 CALUMET AVE. · CHICAGO.

LIST OF MAPS.

1. Population Density and Railroads
2. Land Utilization
3. { Rainfall, Apr. to Sept.
Rainfall, Oct. to Mar.
July isotherms and winds
Jan. isotherms and winds
4. { Wheat, Winter and Spring
Oats
Corn
Barley
5. { Sugar, Beet and Cane
Apples and Citrous Fruits
Tobacco
Cotton and Flax
6. { Vegetables
Potatoes
Hay
Horses and Mules
7. { Cattle
Value of Dairy Products
Swine
Sheep
8. { Coal
Iron Ore
Petroleum
Copper, Silver and Gold
9. { Manufacturing Industries, All
Meat Packing and Fishing
Flour and Grist Mills
Leather Manufacture
10. { Iron and Steel manufacture
Lumber Industries
Cotton manufacturing
Other textile industries

Superintendents, Principals and Teachers are invited to write for circular No. A10, further details, prices, etc. Do it to-day.

(Continued from Page 95)

tical and will be found helpful to schools and community centers.

Everyday English Writing.

By William Leavitt Stoddard A. M. Cloth, vii and 130 pages. The Macmillan Company, New York.

Selection is indeed a fine art. In this rather small book many highly practical statements and directions have been well arranged because the author both understood his subject and had acquired the art of selection.

The aim of this book is to give enough—just enough and no more—to enable students to write such straight forward every-day English as is required in a letter, a report, a simple description, or a newspaper article.

Guy Mannering or The Astrologer.

By Sir Walter Scott. Edited by Eva Warner Case. Cloth, xxxviii and 499 pages. The Macmillan Company, New York.

Suggestive questions, a glossary of words, phrases and allusions, judicious notes and, last but not least, a map of the Guy Mannering region are aids to the careful reader.

In her introduction the editor is both critical and appreciative. The attention of readers is called to the plot details, so carefully worked out, the highly original characters of Meg Nurrilles, Dandie Dinmont, Donimie Sampson, the groups whose talk gives a definite local color, the beautiful descriptive passages to be found in this tale of Scotch life.

Teachers' Manual First Course in Algebra.

By Walter Burton Ford and Charles Ammerman. Cloth, 341 pages. The Macmillan Company, New York.

This manual has a twofold aim. There has been a genuine desire to assist teachers already overburdened with work. There has also been a desire to help teachers, their suggestions, to understand the authors' own point of view upon the various topics treated.

The New-Idea Speller.

By M. A. Lelper, L. E. Foster and E. B. Weathers, Jr. 12 mo. Cloth, xii and 236 pages, illustrated. Price, 40 cents. Ginn & Company, Boston, New York, Chicago, London, Atlanta.

ton, New York, Chicago, London, Atlanta.

England's greatest poet once asked "What's in a name?" Since that time the experience of the industrial world has over and over again proved that a taking name is an important factor in success.

"The New-Idea Speller" expresses the convictions of a normal school instructor, a county and a city superintendent on the teaching of spelling. Designed for grades from two to eight inclusive it contains many fresh devices. Emphasis is laid upon training the eye, the ear, the hand in learning new words. Thus the angle of approach is threefold. In the appendix are helpful lists upon which much valuable work can be arranged.

Elementary American History and Government.

By James Albert Woodburn, Ph. D. and Thomas Francis Moran, Ph. D. Cloth, Li and 517 pages; illustrated. Price, \$1.20. Longmans, Green & Co., New York, Chicago.

Months ago it was realized that the war of 1914-18 would make a thoro revision of the world's political maps a necessity. It now appears that our American histories also need a thoro revision.

While in this new edition the main and characteristic features of the text remain unchanged the viewpoint in regard to many historical events of the past has a new significance. The author brings out sharply the distinction that facts remain unchanged, but the *angle of vision* has been altered and the *emphasis* has been shifted by the war.

A careful reading of the numerous maps—for maps should be read and studied—would give an historical outline from the time of Columbus to the present century. Under the pictures of notable men and women of our country are short summaries of their public work. Other woodcuts show the great advances in household furniture, farming implements, national improvements. Not a little material on American government has been introduced at suitable intervals. Eight full-page color pictures, pronouncing lists, questions and suggestions at the end of each chapter, tables of statistics, a full index, add greatly to the working value of this history.

Junior High School Mathematics.

By William Ledley Vosburgh and Frederick William Gentlemen. Cloth, x and 295 pages. The Macmillan Company, New York.

One book of this series was noticed in the March issue of the Journal. In this third course the brief definitions, clear explanations, high grade work are also characteristic features.

Leaving out non-essentials, placing emphasis upon non-essentials has resulted in a not large, but strong book. Special attention to those forms of factoring used in equations of the second degree, applications of the graph, drawing and measurement of figures in the first geometric proofs, emphasis placed upon "shop" methods in geometric construction are a few of the many good points.

Thrift and Conservation.

By Arthur Henry Chamberlain and James Franklin Chamberlain. Cloth, 272 pages; illustrated. Price, \$1.50 net. J. B. Lippincott Company, London, Philadelphia.

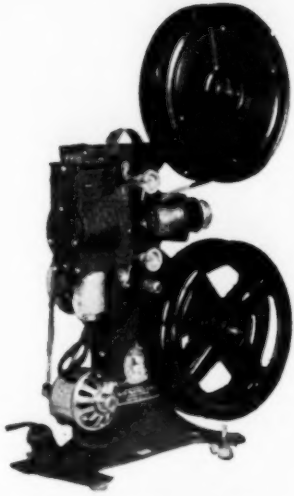
Economy, the management of a house, has lost some of its original force and dignity. Like an old silver coin it has become worn and tarnished. Conservation and thrift have at least temporarily taken its place.

That there may be a general understanding of what thrift-personal, community, national is the subject must be taught in the schools. The committee on Thrift Education of the National Council of Education now offers thru its chairman an authoritative guide to the educational world. The scope of this book is shown by the chapter headings; thrift and the national life, true and false economy, waste, food, dress, time, national resources, increasing the food supply, conserving the soil, value of our forests, mineral fuels, national health, use and misuse of money, use of public property.

Among the fine qualities of this guide are a forcible style, telling diagrams, allusions to the opinions and management of highly successful men, pertinent quotations, references for larger reading.

Scientific Method in the Reconstruction of Ninth-Grade Mathematics.

By Harold Ordway Rugg and John Roscoe



Weight 20 pounds.
Film runs in a straight line in the open in plain view of the operator at all times.



No machine without this label can be safely or legally operated except in a fireproof booth.

AN APPROVAL

That Means Something

THE Victor Safety Cinema, the portable Motion Picture Projector for institutional use, has been inspected by the Laboratories of the National Board of Fire Underwriters and specifically labeled and **APPROVED FOR USE WITHOUT FIREPROOF BOOTH.**

This guarantee of safety throws open to every owner of a Victor Safety Cinema the choicest film subjects of the leading producers, thereby assuring unlimited service, religious, educational, entertaining.

The Safety Cinema has by far the most powerful illuminating system of any portable projector offered for sale. Many of them are in use in churches and auditoriums of schools, colleges, Y. M. C. A.'s and other institutions making ten to sixteen foot pictures at distances up to more than a hundred feet. These same machines are being used with equal satisfaction in the school and Sunday School classrooms.

Its Simplicity, Efficiency and Safety, together with the assurance of an adequate and satisfactory film service make the Safety Cinema a most attractive and practical motion picture projector for all purposes. Catalog and full information mailed upon request.



General Offices:
West Mohawk and Franklin Sts.
BUFFALO, N. Y.

Clark. Paper, 189 pages. Prices, \$1.00 net. The University of Chicago Press, Chicago.

In this arrangement of ninth-grade Mathematics it appears that in 1820 Harvard required an entrance examination in algebra. This action remanded that subject to the secondary schools where unfortunate pupils then used textbooks written by college men for college students.

There is now a growing demand for better results in a shorter time. As but a relatively small number of mathematical teachers in secondary schools have had special training much depends upon a new type of textbook in which dead wood has been cut, out in which fresh fundamental principles are fully discussed and illustrated. Teachers should keep careful records—especially of recurring errors—should notice and compare the work of other teachers, should use good practice exercises and standardized tests. These standardized tests will disclose more than one weak point in teaching.

Some changes recommended may seem out of the question to many teachers. It would be well, however, if the rank and file of the mathematical teachers in the ninth grade would study this able monograph paragraph by paragraph.

PUBLICATIONS.

The United States in the Great War. Paper, 30 pages. The Macmillan Co., New York. This brief account of the war is a supplement to Channing's "Students' History of the United States."

Outline of Course of Instruction in Agricultural Nature Study for the Rural Schools of California. By O. J. Kern, assistant professor of agricultural education, University of California, Berkeley. The subject matter of this pamphlet represents a part of a syllabi which the author has worked out in a course on "The Elements of Agricultural Nature Study and School and Home Gardening" given in the University of California. The material is grouped under four general topics, consisting of human needs, plant life, animal life, and natural phenomena. The lessons are arranged in outline form for each grade and include questions relating to the subject matter covered.

Brief. Submitted to the Honorable William Nottingham, the Honorable Adelbert Moot and the Honorable James Byrne, as a Committee of the Board of Regents of the State of New York, in the application of William L. Ettinger, Supt. of Schools of New York City, for relief from unlawful control of the school system. This report which was issued in April, 1919, gives the basic issues in the controversy relating to the control of expenditures for the New York City schools. It discusses the diversion of state school moneys, the control of educational policies by city authorities, loss of jurisdiction over administrative employees, the intrusion into educational affairs of the city commissioner of accounts, the attitude of the mayor, home rule, etc.

A Review of the Work of the Committee on Education and Special Training, of the War Plans Division of the War Department, Washington. Prepared under the direction of C. R. Mann, chairman of the advisory board of the War Department and issued by the War Department. The report covers in 144 pages, the history and general operations of the Vocational Training Department, the military administration, and the business administration. The appendices contain the regulations governing the students' army training corps, the naval and marine sections and the collegiate section of the S. A. T. C.

Rules and Regulations of the board of education at East Liverpool, O. F. P. Geiger, Supt. of Schools. The booklet contains the rules governing the duties of the board, teaching and supervisory staffs, pupils and janitors.

Concrete Geometry in the Junior High School. By W. H. Fletcher, Director of Teacher-Training Course for Junior High School Teachers, Oshkosh State Normal School. Concrete geometry aims to furnish the student with a definite set of notions regarding space relations, with reference to those applications of geometry which are a part of the immediate environment. This pamphlet describes the course in use at the training school of the Oshkosh Normal. The course which is taught in the seventh grade, deals with problems involving the measurement of rooms, grounds, walks and all kinds of rectilinear areas to accustom children to measurement. The sub-

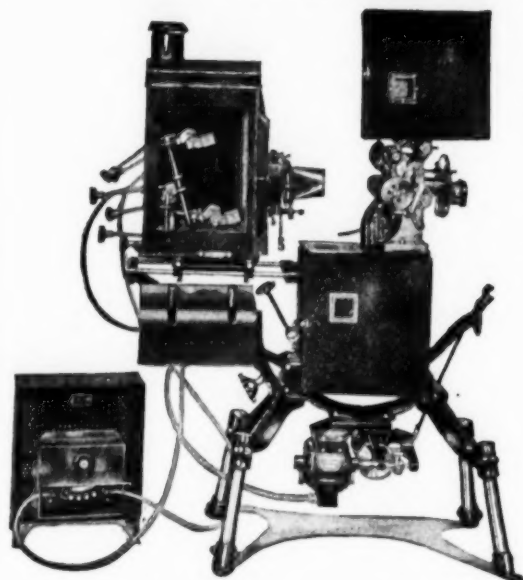
ject matter covers types of problems intended to teach the use of particular kinds of instruments for quick and accurate work, problems teaching new geometrical truths, and problems which the children originate and bring into class. The course has been successful in creating an appreciation for the universal prevalence of geometry in the environment, in acquiring ability to draw accurately, in increasing the power to analyze directions and to work quickly and accurately, and finally in securing a broader conception of space relations.

Some Misapprehensions Touching Life Insurance. Twelfth Annual Report of the Carnegie Foundation for the Advancement of Teaching, 1917. Published by the Carnegie Foundation, 576 Fifth Ave., New York City. It is pointed out that the inadequate participation in insurance by teachers is due partly to the lack of a form of insurance agency suited to their circumstances and partly to the tradition of extreme technicality which has grown up about the subject. The Teachers' Insurance and Annuity Association has been established to meet this situation by affording insurance and annuity contracts especially adapted to the circumstances of the teacher's economic situation and to afford him at the same time such information concerning these as will enable him to decide for himself the form of policy suitable to his needs and purse. The pamphlet discusses the advantages to be found in the association, cooperation of insurance companies, combination of insurance and annuity, separation of insurance contract from annuity contract, justification for endowment insurance, advantages and weaknesses of mutualization, and participating and non-participating policies.

Mr. D. B. Albert, who recently renewed an old association with Charles E. Merrill Company by assuming field direction of their western agency force, has had his sphere of activity enlarged by his appointment as Western Manager.

The many friends of Mr. Silas E. Buck, who for so many years has been identified with the Chicago branch of Charles E. Merrill Company, will be gratified to know that he will continue to be associated with the Chicago Office.

Impress the Subject through
MOTION PICTURES
Project Pictures perfectly with
POWER'S 6 B CAMERAGRAPH



This ideal combination gives the utmost satisfaction in educational, commercial and amusement lines.

This pioneer projector bears an international reputation. Its ease of operation and mechanical construction are such that, in a perfect manner,

**IT PUTS THE PICTURE
ON THE SCREEN**

Catalogue 33 Gives Complete Details

NICHOLAS POWER COMPANY

INCORPORATED

90 Gold Street

Pioneers of Projection

NEW YORK, N. Y.

MOVING PICTURES FOR SCHOOLS

Hundreds of schools and colleges are using moving pictures for instructional and entertainment purposes. Problems that face them in procuring the right kind of reels, in operating their projection machines and in dealing with the film exchanges are being answered each month in

MOVING PICTURE AGE
(REEL AND SLIDE MAGAZINE)

The Visual Instruction Guide

Conservative, non-commercial, interesting and practical; a mine of information, available to every schoolman or woman, every progressive educator.

Special articles in every issue, by leaders in the visual instruction movement and school community plan. Practical working plans in every issue for the school head interested in moving picture work. Beautiful and interesting pictures from the latest instructional films.

A Monthly List of Approved Moving Pictures,
Selected for Institutional Use.
In Every Issue of **MOVING PICTURE AGE** (Reel and Slide Magazine).

Showing Movies in School and Church

An interesting book, covering in detail the use of the screen in community and educational work. Illustrated with plates. Tells where to get the films. Shows how to make films pay their way, build up a congregation and make the school a community center.

Price \$1.

SPECIAL OFFER:

This book with 12 issues of *Moving Picture Age*, if you act NOW, both for only \$1.

Send today.

Name.....
Address.....
City.....
State.....
Profession.....

Please send me *Moving Picture Age* for one year, under your Special Combination Offer, for which I enclose \$1 for both (or 50c for magazine alone). I enclose.....

THE essentials to education,—mental conditions necessary to knowledge assimilation,—are best obtained when motion pictures supplement the regular curriculum. Concentration is fostered,—imagination is stimulated,—ability increased.

Thus benefiting educators, this great pedagogical aid should be used in every class-room, which, since the inception of

THE DEVRY PORTABLE PROJECTOR, is being done in many of the country's leading schools.

The DeVry Portable Projector, embodying the most advanced principles of projector construction, with portability and extreme simplicity of operation, is ideally suited for class-room use.

Write for a complete descriptive catalog. Address

The DeVry Corporation
62 Marianna St. :: Chicago, Ill.



SPENCER



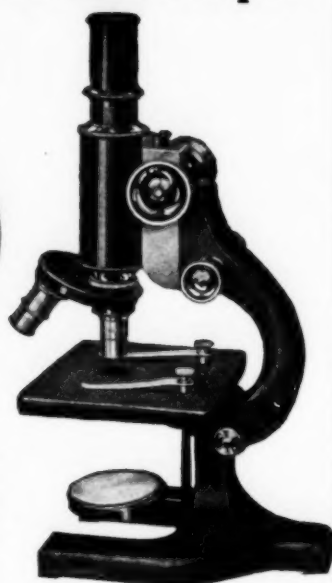
Microscopes and Delineascopes

POSSESS MANY
SUPERIOR FEATURES
WHICH MAKE THEM IDEAL FOR
LABORATORY USE



MODEL "O" DELINEASCOPE

with the Spencer Transposer, a mechanical device for handling the lantern slides which does away with the old cumbersome, troublesome lantern slide holder, and in addition gives a *dissolving effect* on the screen, which is accomplished with but one outfit (not two)



MICROSCOPE No. 64 B

MICROSCOPE No. 64 has a side fine adjustment with 34 threads of the screw engaged as compared with an equivalent of but one in other makes. It has a "*lateral travel*"—an index to its position relative to its limits. No other make has this. It is equipped with Spencer Optics, which have been considered ideal for three-quarters of a century.

SEND FOR CATALOG

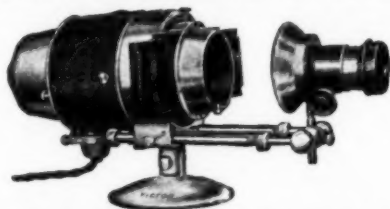


SPENCER LENS COMPANY

BUFFALO, N. Y.



THE VICTOR PORTABLE STEREOPTICON



Is the "ARISTOCRAT OF STEREOPTICONS" because it combines all the essentials—perfect projection, light weight, long service, simplicity, inter-changeable lamps and lenses.

Write for trial terms

VICTOR ANIMATOGRAPH CO., Inc.

141 Victor Building

Davenport, Iowa

PRICE OR QUALITY?

When you are purchasing scientific apparatus, which factor determines the source from which you decide to purchase, **price or quality?**

Why not apply this same method of determination to the selection of everything else, teachers, buildings, clothing, doctors, dentists, etc.?

Do you not find that the **cheapest** is generally the **most expensive** in the long run?

Will you think of this when you make your next year's purchase of scientific apparatus?

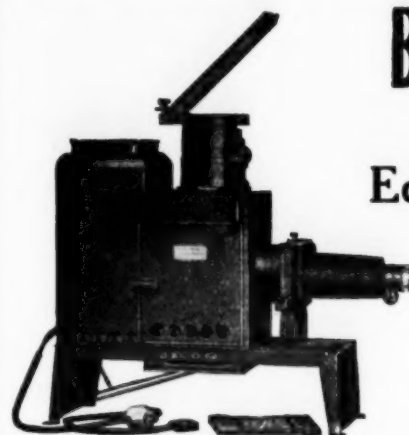
We refuse to sacrifice **quality** to **price** in order to secure your order.

CENTRAL SCIENTIFIC COMPANY

460 East Ohio Street

CHICAGO

U. S. A.



Combined Balopticon
For Lantern Slides and Opaque Objects
Price \$150

Bausch and Lomb Balopticon

Education Through the Eye

Which "gets" a thought
"across" faster—word or
picture?

Why are "movies"
quicker educators than
books?

Why are "illustrated" talks better attended than *all-words* lectures?

Visual education—education through Bausch & Lomb Balopticons, particularly—is recognized now as the quickest means for making people understand.

Didn't *pictures* bring the war to us faster, more vividly, than words?

And as for the quality of Balopticon pictures—Balopticons are Bausch & Lomb products. That guarantees the quality of the pictures.

Bausch & Lomb Optical Co.

411 ST. PAUL STREET ROCHESTER, N. Y.

New York

Washington

Chicago

San Francisco

Leading American Makers of Photographic Lenses, Microscopes, Projection Apparatus (Balopticons), Ophthalmic Lenses and Instruments, Photomicrographic Apparatus, Range Finders and Gun Sights for Army and Navy, Searchlight Reflectors, Stereo-Prism Binoculars, Magnifiers and other High-Grade Optical Products.

We Specialize in High School

SCENERY

Unequalled for Quality and Artistic Beauty

Our 29 years' experience in equipping every design of stage and the high character of our productions warrant your careful consideration.

Information in regard to Stage Construction cheerfully furnished.

KANSAS CITY SCENIC COMPANY

24th and Harrison

Kansas City, Mo.

Modern Schools Demand a Sanitary Cleaning System

THE Spencer Central Cleaning System solves the schoolhouse cleaning problem. It is no longer necessary to endanger the health of teachers and pupils by filling the air with dust and all the impurities that go with it, when cleaning a school building. The Spencer System cleans rapidly and thoroughly, drawing all dust and dirt entirely out of the rooms being cleaned.

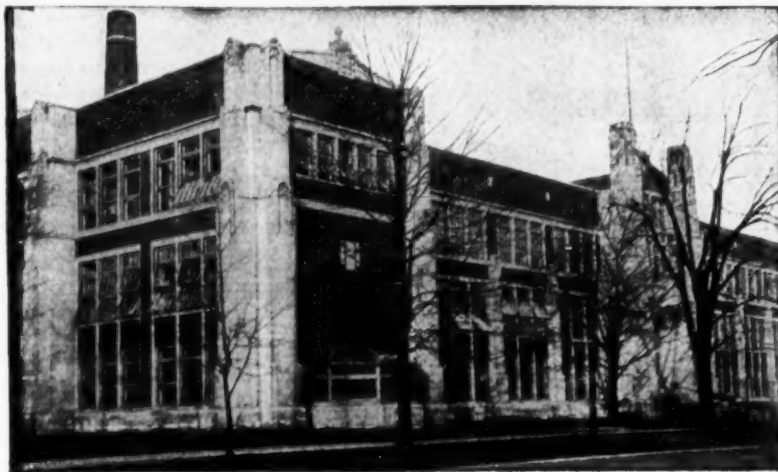
WRITE FOR CATALOG

The Spencer Turbine Company

Department A

HARTFORD, CONN.

"Wilson Reverso" Windows are the most satisfactory for schools



BLOOMINGTON HIGH SCHOOL, BLOOMINGTON, ILL.
ARTHUR L. PILLSBURY, Architect J. L. SIMMONS CO., Builder

250 Rolled Steel Wilson Windows Used

McFARLAND-HYDE CO., 27th and Fifth Ave., Chicago.

Gentlemen:—We used your roll steel windows in the Bloomington High School building which was built here during the years 1915 and 1916.

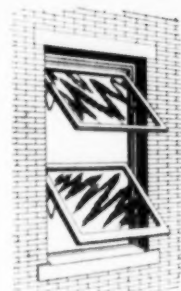
I was determined in selecting windows for this building to get a type that would prove both water tight and wind proof as far as possible, besides having other qualifications that go with metal frames and metal sash, and in addition, a window that can be easily cleaned from the inside.

I am very glad to state that neither in the preliminary test nor at any time during the use of the building since completion have we found the windows deficient in any respect as to either leakage of water or of wind. In fact they have proven more satisfactory than I even expected. I think that the weather stripping which you use accomplishes its purpose in good shape.

I have no hesitation in saying that in case we are in a position to want metal frames or sash again that I would not hesitate to use your product.

Yours truly, A. L. PILLSBURY

"WILSON REVERSO" WINDOWS are manufactured in Hollow Galvanized Iron Underwriters' construction, also Rolled Steel. We furnish hardware complete for Wood Windows.



Wilson Reverso
Patented

27th and So. Wells Sts.
CHICAGO, ILL.

J. C. McFARLAND COMPANY

New York Office:
1123 Broadway

Cheap Insurance for Fire and Life



By protecting your property, you protect your life. By installing the BLAZE HAND FIRE EXTINGUISHER—the only positive protection against fire—you protect both.

Fire protection is the best insurance you can buy.

The BLAZE EXTINGUISHER pays for itself and reduces the cost of your insurance. It can be handled successfully by women and children. No pumping; no complicated mechanism to get out of order. It requires no attention after being loaded until used, is guaranteed for 25 years, does not burn, spot or stain the most delicate fabric, and is absolutely harmless to the skin.

Every building and home should be equipped with the BLAZE EXTINGUISHER.

Refills free after each fire, making the first cost the whole cost.

Write today for further information. Agents wanted.

MINIMUM WAGE LAW FOR TEACHERS IN IOWA.

(Continued from Page 40)

State Teachers' Association were given parts of legislation to draw and manage with the legislature.

It became the duty of the chairman of the North Eastern Section of the Iowa State Teachers' Association to draw a Minimum Wage Bill. The plan in this bill was to provide, first; for an educational training and qualification. Teachers are not efficient workers when they are educated any more than an army is a great force after they have been properly drilled. The question of morale is necessary to convert a trained teacher into a professional teacher, just as morale is essential in the army to produce great soldiers. Besides education, professional growth is a pre-requisite for the teacher after college education. The minimum wage law provides for, first, education; second, professional growth; and third, for a certificate below normal school training.

It was the conviction of the legislative committee that some legislation must be enacted which would take away the unqualified temptations of certain school officials to select the cheapest teacher and conduct a school with the smallest expense. With a large per cent of school boards making this a current practice it is quite impossible to keep a reserve of trained teachers for general need and especially in an emergency. Some legislation that would place a higher level of instruction for all boys and girls in Iowa was deemed very desirable. The cheap teacher has always been, more or less, a menace to the efficiency of any school system. Cheap teachers are synonymous with poor opportunities in education for the children in the

district. They are an excuse for the blundering incompetency of ignorance in the management of schools.

The legislature felt convinced that education in Iowa should become a privilege and a right of every boy within the state. Education must become a function of the state. The aims of this legislation, therefore, were to produce better schools for the sake of the boys and girls. It was to the lasting shame of the state that many boys and girls who were living on the rich prairies of Iowa were compelled to go to school in charge of teachers who were but little better prepared than the pupils. There was no reason why the teachers in the smaller schools should not be prepared equally with the teachers of the better systems. The boys and girls in the smaller schools are deserving of the same skill and the same splendid opportunity in education that was given in many communities near by. Each child has his responsibility to carry in a democracy and must have his rights in a democracy from an educational standpoint. The farmers in Iowa have felt that their boys and girls are deserving of the best and wished to have a better qualification for teachers.

A more uniform system of training for teachers from the first grade thru the entire system, was desirable and necessary. Formerly teachers were selected, in the first or second grades, who were especially trained. But untrained teachers were placed over children from the third to the eighth grades, with the feeling that almost anybody could teach children of that age. In the eighth grade a well trained teacher having ability in discipline was selected in order to give the boys and girls a better foundation for the high school.

All teachers in the public schools of this state

shall be paid for their services a minimum wage of not less than the amounts hereinafter set forth:

1. A teacher who has completed a four-year college course and received a degree from an approved college and who is the holder of a state certificate or a state diploma shall receive a minimum wage of one hundred dollars (\$100.00) per month until a successful teaching experience in the public schools shall have been established. Thereafter the minimum wage shall be one hundred and twenty dollars (\$120.00) per month.

2. A teacher who has completed a two-year course in education in a state normal school or other school whose diploma is recognized as an equivalent diploma by the state board of educational examiners and who shall be the holder of a state certificate issued upon examination, shall receive a minimum wage of eighty dollars (\$80.00) per month, until a successful teaching experience of two years in the public schools shall have been established. Thereafter the minimum wage shall be one hundred dollars (\$100.00) per month.

3. A teacher who has completed a normal course in a normal training high school and who has had less than one year of successful teaching experience shall receive a minimum wage of sixty dollars (\$60.00) per month. A teacher who has completed a normal course in a normal training high school and who shall have had one year of successful teaching experience, and a teacher holding a first grade uniform county certificate, shall receive a minimum wage of seventy-five dollars (\$75.00) per month, until a successful experience of two years in a public school shall have been established.

(Continued on Page 103)

A Clean Towel For Each Pair of Hands

Sample package free if you write on your business stationery.



Northern
FIBRE FOLDED **TOWELS**

NORTHERN PAPER MILLS
GREEN BAY WISCONSIN

here's a sanitary way to furnish soap in your gym—

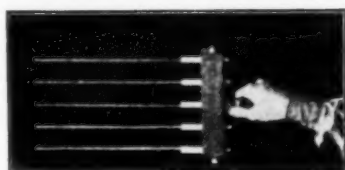
If shower baths are to be really successful soap must be furnished. A large cake of soap, left in the shower for general use, is unsanitary. Dispensing individual cakes of soap is expensive.

The PALMOLIVE Vending System solves the problem. A penny in the slot brings a small cake of soap. Machine requires no attention. The system can be installed in your school without cost. Ask for free book, "Soap and Clockticks."

THE PALMOLIVE COMPANY

Dept. A-6, Milwaukee, Wis.

Specialists in Individual Soap for Gymnasiums



The Rapid Blackboard Liner

EASY TO HANDLE

FOR MUSIC AND PENMANSHIP

SENT POSTPAID ON RECEIPT OF 25c.

COLLEGE AND SCHOOL SUPPLIES

Peckham, Little & Co.

57-59 E. Eleventh St.

New York

Official Figures Prove the Efficiency of ISAAC PITMAN SHORTHAND

Claims are one thing—proof is another. Here are facts, that prove to any one that the greatest percentage of successful shorthand writers use the system of proven success.

OF THE UNITED STATES GOVERNMENT SHORTHAND CLERKS

77.3 per cent. write Pitmanic Phonography,
22.7 per cent. other systems of shorthand.

(See Report of the Commissioner of Education for 1913—the most recent official statistics on this subject.)

Of the official shorthand court reporters of the United States,
91.2 per cent. write Pitmanic Phonography,
8.8 per cent. other systems of shorthand.

(See the latest roster of the National Shorthand Reporters' Association as published in its "Proceedings" for 1917.)

Send for Particulars of a Free Correspondence Course for Teachers.

ISAAC PITMAN & SONS, : 2 West Forty-Fifth Street, New York



Dann's All-Steel Dictionary Holder

(Made entirely of steel)

No woods to gather germs and to warp.
No iron to corrode; no springs to break.
Can be adjusted to hold any size book.
Can be raised and lowered at will.
Can be tilted to any angle and pivoted to any position.

Circular and prices of our Stand and Wall-Bracket Holders mailed on request

Union School Furnishing Co.

Manufacturers, Publishers and Dealers in School Furniture and School Supplies

Chicago, Ill.

Houston, Tex.

TEACHERS' GUIDES

These practical aides for the teacher promote efficiency in the classroom. They include plan books, teachers' daily blotters, teachers daily plan sheets for primary grade and high school work, teachers' practical guides, opening exercises, etc.

THE "METSUCO" LINE

Diplomas

Card Index Systems

Metsuco Report Systems

Character Building Systems

Teachers' Guides

Registered Records

Papers of All Kinds

Write today for samples of the METSUCO line or have our expert advise you on forms, systems, records, school laws, etc.

METROPOLITAN SUPPLY COMPANY, ANAMOSA, IOWA

WE OWN AND OPERATE OUR OWN PLANT
PAPER PRODUCTS DIRECT FROM FACTORY TO CONSUMER

Spencerian
Steel Pens

Samples Sent to School Superintendents and Teachers on Application

SPENCERIAN PEN CO.

349 Broadway, New York

It Took Him a Half Day

To Find It

**YOU CAN FIND IT
IN HALF A MINUTE**

If you use Roberts & Meck's

RECORD FORMS, SCHOOL RECORDS

of all kinds. Samples and prices on application.

ROBERTS & MECK

HARRISBURG, PA.

The Underwood Typewriter

**Its Merit is Proved by the
Successes It Has Made**



*Holder for 13 years of the International
Trophy Cup for*

SPEED -- ACCURACY -- DURABILITY

*Possessor of Elliott Cresson Medal for
mechanical supremacy*

*It is the machine for the operator--all
World's Champions use and endorse it*

The popular machine for tuition purposes

U N D E R W O O D

(Continued from Page 101)

lished: thereafter, the minimum wage shall be eighty dollars (\$80.00) per month.

4. A teacher who is the holder of a second grade uniform county certificate shall receive a minimum wage of sixty dollars (\$60.00) per month until a successful experience of one year's duration in the public schools shall have been established. Thereafter the minimum wage shall be sixty-five dollars (\$65.00) per month.

5. A teacher holding a third grade uniform county certificate shall receive a minimum wage of fifty dollars (\$50.00) per month.

Section 2. The holder of any certificate in order to become entitled to the increase in salary provided by this act because of successful teaching experience must file with the county superintendent his certificate, also proofs of one or two years' of teaching experience as the law requires. If in the opinion of the county superintendent the proofs are unsatisfactory, he shall indorse said findings on the back of the certificates and return same to the holder thereof, and any certificates properly indorsed by the county superintendent shall be evidence of qualification for the increase of salary provided by this act for such teaching experience.

The present law will enable teachers to receive a wage, from the first to the eighth grades, according to training, and will permit teachers to qualify for the intermediate grades with the same skill, equal security and opportunity of employment that are found in the other grades. In order to secure better teachers it is necessary to provide for an adequate education. Teachers are not generally altruistic enough to take years of time and make great outlays in money for education to enter the teaching profession where the services are to be under-paid. In order to

have better teachers it is necessary to have higher education. After a teacher has been trained it is too expensive to permit her to leave the teaching profession in a year or two. It is expensive from various standpoints. The state annually made large appropriations for equipment and buildings in order that teachers might be especially trained. Superintendents and supervisors are employed in order to direct these untrained teachers into efficient workers. If a teacher left the service after a year or two when she was just becoming efficient, there was great loss financially and educationally. In order to maintain a longer tenure of office it was necessary for a teacher to feel that she must have some reward for her continuance in service. This legislation provides for a proper encouragement in this respect.

A teacher is willing, generally, to educate herself and to spend years in the service if she may anticipate and feel sure of better salaries. The Iowa minimum-wage law provides for these considerations. In Iowa a teacher may reasonably hope for a satisfactory position in spite of personal whims or notions of school directors or administrators. After her education is completed and as long as she maintains her professional growth, she can feel quite secure in the teaching profession whether it is in the same school or not.

Various results may be reasonably anticipated from this legislation. The first great result was a raising of wages over the state in practically every community and in many districts the wage for teachers was increased more than fifty per cent. In Iowa, at present, there is a feeling that we have some appearance of a state system of schools. There is a uniform qualification for teachers. The small community may feel that

their teacher has a qualification and a professional growth equal to the teacher in the neighboring community. There will not be the fine teacher artist in an elaborately equipped school in one part of a township and a teacher within a few miles who has made practically no preparation for her profession. This great extreme may reasonably be expected to disappear in a short time. There is no incentive for a director to take the poorest prepared teacher on the market. The state of Iowa is assuming the safeguard of the child rather than to permit this haphazard incompetence of school officials. There is a deplorable calamity in the life of any child who has an administrator in that school who determines the qualification of the teacher, the salary and general policies of the school with an educational training below the level of the average child in the intermediate school. In a study of the relation existing between superintendents and school boards in Iowa in the year 1918-'19 two per cent of the school boards has received a fifth grade education, two per cent, a sixth grade education, seven per cent a seventh grade education and 21 per cent had received an eighth grade education. There is little in such qualification to be commended in the administration of the school system in Iowa by school directors. The minimum-wage law is destined to relieve much of the unlimited authority of such untrained and poorly educated persons in school management. Under such educational preparation the state no longer felt safe to trust the education of children in the hands of gross incompetence and has wisely provided for a preparation and professional growth somewhat independent of the directors.

Teachers generally have a keen interest in educational work and will seek the highest edu-



STEGER

The most valuable piano in the world

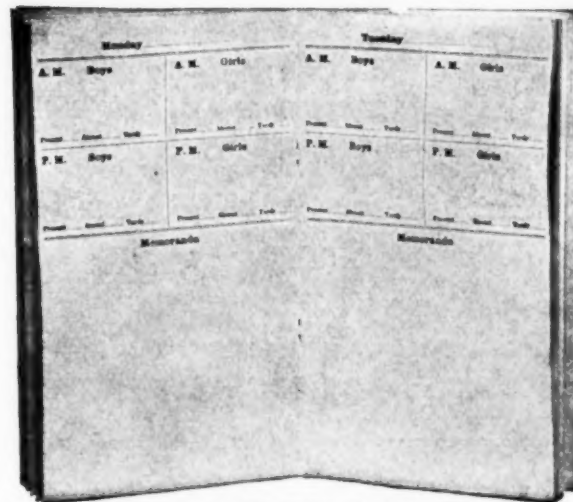
¶ Your discrimination—your sense of artistic values—is always happily reflected in the choice of a Steger Piano. The Steger embodies to the fullest measure those chief qualities of a piano; clarity and beauty of tone, distinction of design, permanence of pleasurable ownership. It is a highlight of beauty in any environment.

¶ Steger Pianos and Player Pianos are shipped on approval to persons of responsibility. Write for the Steger Style Brochure and convenient terms. Steger dealers everywhere.

STEGER & SONS
PIANO MANUFACTURING CO.
Founded by John V. Steger, 1879
STEGER BUILDING, CHICAGO
Factories at Steger, Illinois

Better Than Ever!

Diary Note Book



ESCO TEACHERS' NOTE BOOK

Consists of 200 pages pencil paper in manila covered books. Each page provides space for notation of absences, tardiness and other markings; also ample space in which to lay out future work. One page for each day, forty weeks.

Handy Pocket Size, 5" x 8 1/2"

WRITE US TODAY FOR CATALOG AND PRICES

EDUCATIONAL SUPPLIES CO.

EVERYTHING FOR THE SCHOOLS

CEDAR RAPIDS, IOWA

cation which their funds and time will permit. If there is any encouragement given to this professional preparation they will generally be happy and feel a pride in the leadership, through education, for their work. If the best class of men and women are to be attracted to the teaching profession for a life work it is necessary that a respectable wage shall be an attractive element in the work. No state is the richer because the state servants are the poorer. Young people cannot feel the best regard for any institution whose managers and directors are abominably provided for. There is nothing about the under-paid slave that is attractive to the real American boy. Education has a larger field than the incompetent and under-paid can ever perform.

Under the minimum-wage law it is quite impossible for the poor teacher to compete with the higher teacher for a position. To illustrate: A teacher who is qualified to receive \$1,200 a year does not necessarily have to compete with the teacher who is qualified to receive \$720 per year. Few school boards are willing to pay the untrained and inexperienced teacher a wage high enough to drive the best teacher out of the profession. The classes of work are so separate that there is practically no competition between the college graduate, the normal school graduate, the high school graduate or those teaching on lower certificates. The school board and superintendents shall have a thought for the selection of better teachers, realizing that the poor teacher is already provided for by law.

In another respect the minimum-wage law will have a wholesome influence in the city corps by eliminating some of the competition and jealousy that have frequently been felt under

the old system. A teacher who has her college training and professional growth has some fixed scale by which she can be rated and has some reasonable basis upon which she may anticipate an increase in salary. It is not necessary to resort to the hide-and-seek method so frequently used in school systems in the past.

Another great opportunity that will come from this is the larger attendance in the higher institutions of learning. The many splendid colleges in the state will be serving the educational interests in the manner in which they have prepared. Empty college halls may be considered the tombs of a democracy. The largest attendance in higher institutions of learning by teachers is the great bulwark of safety for the American democracy.

SCHOOL BOARD NOTES

Cincinnati, O. The board has purchased two small automobiles for the use of the truant officers who patrol the suburban districts of the city. It is the purpose of the board to obviate the necessity of employing additional high salaried men for locating truant school children.

The school board of Duluth, Minn., has begun a campaign for better business methods in the direction of economy and efficiency in the purchase of supplies. Bids for supplies are to be opened weekly by the committee on administration and finance to obtain the best prices on all articles. All bills are to be paid in cash and are to be discounted at two per cent. The discount is to be paid in addition to trade discounts offered schools as public institutions.

A report on the activities of the attendance department of Indianapolis has recently been rendered by Mr. W. A. Hacker, director of the department. The report which covers the work of the department during the last school year, includes explanations and comment interspersed with the figures, and the aims and work of the

attendance department. The twelve workers in the department are educated and trained in the work of social uplift and an effort is made to keep out of court, to interest pupils and parents in the schools, and to interest the schools in the parents and pupils thru personal contact.

Mr. Hacker shows that the attendance department has been successful in adjusting difficulties without court action, as indicated by the fact that 141 cases were taken into court and 262 cases were settled out of court. Six parents were sent to jail for refusals to send their children to school and fines were suspended in 29 cases. In thirteen cases the children were sent to institutions and in twenty cases the children were ordered sent to school.

During the past year the attendance department dealt with 11,816 individuals of whom 7,968 were in school and 3,847 received employment permits. Employment permits to the number of 5,510 have been issued, with seven or eight permits each in the case of some children.

As a final conclusion, Mr. Hacker urged a broader educational program which will better aid the boys who "tumble" into jobs and "tumble" out of jobs and thus go tumbling thru life without definite aims and without educational equipment to aid in earning a living wage in later years.

Columbus, O. The board has given an increase of twenty per cent to the janitors.

Wapakoneta, O. The janitors were given increases of \$5 per month.

Mansfield, O. The board has increased the salaries of janitors and assistant janitors \$10 per month.

The school board of Lynn, Mass., has ruled that any child who reached the age of 5 in January last, may be admitted to the first grade in the schools.

The school board of Richmond, Ind., has employed a business manager to take charge of the purchasing of supplies and the supervision of school buildings. The new office has been created as a means of effecting economies in the operation and maintenance departments.

The Norton Liquid Door Check with Hold-Open Arms



Approved by the National Board of Fire Underwriters Laboratories
THE NORTON DOOR CHECK CO., 904 W. Lake St., CHICAGO, ILL.

especially adapted for schoolhouse work.

WHY IS THE NORTON CHECK WITH HOLD-OPEN ARMS THE BEST SUITED FOR SCHOOLHOUSE WORK?

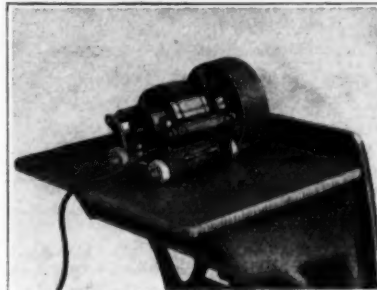
1st. The doors are closed with a uniform speed, which gives the pupils a chance to go through a door without getting caught or injured.

2nd. Having two speeds—the speed at the latch can be set for absolute quiet—no latch necessary.

3rd. The Holder Arm attachment for holding a door open is automatic, a child can operate it—just a push or pull on the door is all there is to do to it. Every schoolroom should have one.

Soiled Desks Are Not Spoiled Desks

It is not necessary to buy new desks every few years just because the tops are scratched, and the varnish partly worn off. Naturally this makes the desk poor in appearance. An Automatic Electric Surfacing Machine however, will quickly make the desks like new. The little Electric Machine rapidly and cheaply resurfaces your old desk making them like new.



By using a coarse sandpaper first the old varnish is quickly removed, and by finishing with a fine grade the surface is made smooth and attractive.

Free trial offer. Ask about it.

WAYVELL CHAPPELL & CO.

Dept. F, 414 W. Grand Ave. CHICAGO, ILL. Telephone Superior 6864

Steel Lockers

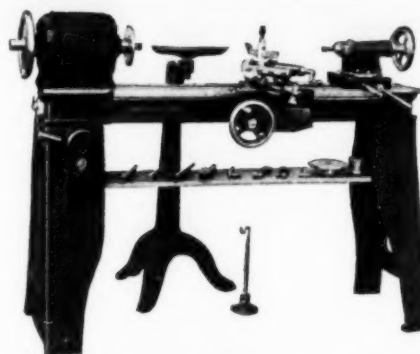


for Schools and Clubs

Write for Full Catalog

THE ARMOR CLAD MFG. CO.

CANTON, OHIO



If In Doubt

consult the School Authorities of Buffalo, Jersey City, Memphis, San Francisco, Winnipeg, Rochester and a hundred other cities we could name if space permitted and learn what they think of American

Woodworking Machinery for Manual Training Work.

Every School Board should have our catalog on file. Let us send you a copy.

American Wood Working Machinery Co.

591 Lyell Avenue, Rochester, N. Y.

BUFFALO'S NEW SALARY SCHEDULE.

Buffalo, N. Y. The board of education has unanimously adopted a salary schedule for teachers providing for annual increases of \$100 and for further raises of \$200 in January next. The entire schedule was worked out by Supt. Ernest C. Hartwell with the assistance of the teachers' committee.

Under the new schedule, elementary teachers will begin at a minimum of \$800 and work to a maximum of \$1,600; high school teachers will be given a minimum of \$1,200 and a maximum of \$2,000; special assistants in high schools will draw a minimum of \$1,700 and a maximum of \$2,300; heads of departments will be given a minimum of \$1,800 and a maximum of \$2,700; high school principals will be given a minimum of \$3,500 and a maximum of \$4,500; vocational teachers will be paid a minimum of \$1,400 and a maximum of \$2,200; supervisors will be given a minimum of \$2,700 and a maximum of \$3,400; elementary principals will be paid a minimum of \$2,000 and a maximum of \$3,400. It is provided that teachers shall immediately receive credit for the length of their service but the immediate increase may in no case exceed \$500.

As a basis for the new schedule, a study was made of the local financial situation and a comparative statement was issued to cover the elements of tax rate, school appropriations, etc. The effect of the higher salaries on the tax rate was made so clear that there was no argument. The entire proposition was accepted without discussion among the responsible officials and without opposition from any private source. Teachers, press and public approved.

The table appended makes clear the several factors:

Total Assessed Valuation According to Official Statement of the City of Buffalo, for 1919-20.....	\$560,079,750
Money Raised by General Taxation for all Purposes.....	15,054,943
City Tax Rate for Fiscal Year per \$1,000.....	26.88
Money Raised by Taxation for School Purposes.....	3,756,181

Percentage of Total Tax Used for School Purposes, arrived at by dividing the amount raised for school purposes by the amount raised for all purposes.....	25.04
Additional Fund for Proposed Salary Adjustment.....	719,260
Additional Funds Received from the State.....	215,500
Additional Amount to be Raised by Taxation.....	503,760
Six-tenths of the Entire Amount to be Required for Fiscal Year, making the total.....	302,256
The Sum of \$302,000 Added to the Amount Raised by Taxation for School Purposes.....	4,058,437
If this sum had been raised this year, with the present assessed valuation and with all other city expenses remaining as computed in the official statement, the total amount to be raised would have been.....	15,357,199
The tax rate would have been.....	27.419
a difference of 27.41.....	26.88..... .53 a thousand
and the school percentage of the total tax would have been.....	26.4

WHAT IS A PROPER SALARY FOR TEACHERS?

What salary should teachers receive? If present salaries are too low, how much should they be increased? These are important questions, both from the standpoint of the teacher and from the standpoint of the taxpayer.

Assuredly the teacher is entitled to a satisfactory living wage. So patent is the high cost of living that salaries must be increased more than a little to meet it. School teachers should be provided with a comfortable living such as persons of similar standing, character, training and ability receive. No one renders more valuable service to society than the true teacher, and no more reason exists why she should undergo priv-

ations and hardships, or be caused to leave her profession for lack of remuneration than the physician, minister, lawyer, or any one else engaged in an honorable pursuit. A teacher should be enabled to carry herself well, to present a pleasing and attractive personality and to be tidily dressed. The taxpayer cannot afford to have a badly dressed teacher for his child. The influence of proper apparel on children is to be taken into consideration. Example is more potent than precept. The citizen cannot afford to have an ignorant teacher nor an untrained teacher, nor one lacking in culture nor refinement nor personal force nor character. His child had better go half clad, plainly fed and barefoot than to be taught, or be mistaught, by such a person. These are inconveniences and hardships that do not necessarily leave permanently bad effects, but under an inferior teacher the child is caused to lose the precious time of youth and many perhaps be inflicted with a dwarfed mind, arrested development, and loss of character. Poor salaries and poor teachers go hand in hand.

Other demands than living expenses are constantly to be met by teachers. They are expected to attend summer schools, subscribe for educational periodicals, and buy books if they are to keep step in the march of progress. No ambitious Board should expect less than this of its teachers. And last, but by no means least, the teacher should receive such remuneration as will enable her to put aside each year a small sum for the years of old age, that period in the life of all of us when active work must stop and earning power ceases.

Necessarily salaries will vary in different sections of the State, as living costs are by no means uniform. Salaries will be affected by and must be adapted to local conditions.—J. C. Fant, University of Mississippi.

The new Board of Education at Birmingham, Mich., sets grade teachers' salaries at \$1,250. Principal W. S. Toothacker of the Baldwin High School is to receive \$2,500 and Supt. Clarence Vliet, \$3,600.

THE ARMSTRONG COMPANY SECTIONAL SCHOOL BUILDINGS

OUR PLANS
APPROVED
BY YOUR
SCHOOL BOARD

AND MEET EVERY
REQUIREMENT
OF YOUR
BUILDING CODE

The ARMSTRONG SECTIONAL SCHOOL BUILDINGS are complete in every detail, having double floors, double side walls and ceilings. With every modern convenience makes them the best **Portable School Buildings** on the market today. With the perfect lighting and ventilation, they are without equal. Our buildings can be taken down and moved to another location without mutilating in the least any of the parts. We can prove it. If you write us what you desire, we will send you full details. We are specialists in Sectional School construction.

THE ARMSTRONG COMPANY, P. O., 401, ITHACA, NEW YORK



Sectional and Portable School Houses

If you are in need of Portable School Houses why not get the best? School Boards in thirty-two states are using our houses. Can furnish references in any section. Investigate before buying. We guarantee our

Portable School Houses

to be dry, warm and sanitary, as well as thoroughly insulated, well ventilated and with double walls. Sold in any size, open air and two rooms when desired.

Send for Plans and Prices.

**AMERICAN PORTABLE
HOUSE COMPANY**

3081 Arcade Bldg., Seattle, Wash.



The Smith System of Heating and Ventilation



Especially Adapted to Portable
Schools.

Gives the most perfect heat distribution and greatest amount of ventilation with the least amount of Fuel.

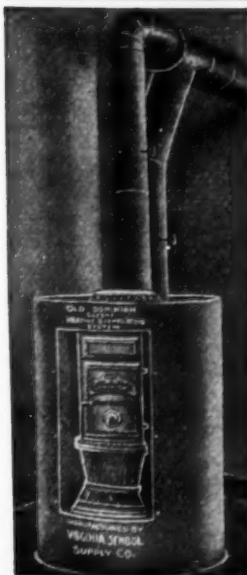
More than 30,000 School Rooms are equipped with it.

In use in most of the Leading Cities.

Write for Catalog.

Smith System Heating Company

Minneapolis, Minn.



Protect the Health of the Children

If the children in the classroom should be bright and cheery the heat must be uniform and the ventilation just right.

Heating and Ventilation are two important factors in the school room. If the air in the school room is foul and ventilation poor, disease is almost inevitable.

OLD DOMINION PATENT HEATING AND VENTILATING SYSTEM

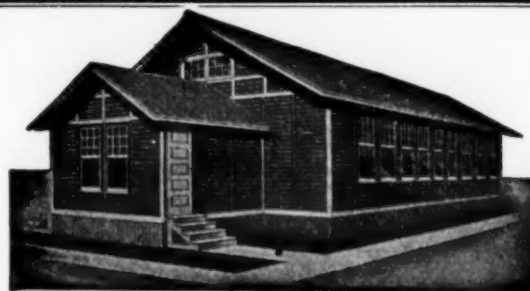
will keep the room fresh with pure air yet warm and comfortable.

No separate independent foul air ducts or flues made of brick or metal are required. It is easy to set up and regulate and will not clog with soot or rot out. Every part is combined and all stove and ventilating pipes up to five feet are furnished.

Our descriptive catalog gives full information and will be sent upon request.

Virginia School Supply Company

2000-2012 W. Marshall St. Richmond, Va.



To School Boards-

WORRY no longer about what you will do with your overflow districts; or new districts where you have no appropriation to build on a large scale.

OVER 1000 M. & M. GOLD BOND PORTABLE SCHOOLS

—now in use all over the U. S. Suitable, any climate, low in price, substantial, comfortable —scientifically ventilated—perfect in every detail. No carpenter work. All complete when shipped. Simply match up plainly marked sections. Can be taken down and set up without harm or trouble.

ALL SIZES—ALL PRICES. WRITE for Free Catalog containing designs, plans, specifications, prices.

MERSON & MORLEY CO.,

95 Main Street,

SAGINAW, MICH



Bossert Schools

Are Warm in Winter and Cool in Summer

We are equipped to furnish any size building on short notice. Prices of same depend on requirements and State Laws—but in every case are the lowest for quality of material supplied. Remember, this is not a cut lumber proposition, and the cost of erecting is a very small item. While not essential, as any unskilled labor can do it, we will, if you desire, arrange to erect all buildings. Buildings can be taken down and re-erected any number of times without marring a single feature.

We have made portable school houses for other people for over 25 years. Now you can buy Bossert School Houses with all our new patents and improvements direct from us and save money for your school board.

Write us full requirements and we will send details of cost of building completely erected.

LOUIS BOSSERT & SONS, Inc.

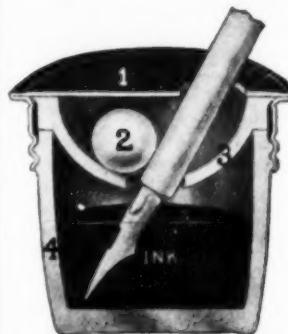
Builders of School Houses for over 25 years.

1323 Grand Street

Brooklyn, N. Y.

FOR ECONOMY AND EFFICIENCY

Squires Improved Self Closing Inkwell



It will save its cost the first year in ink and trouble. Fits a hole $1\frac{1}{4}$ to $1\frac{1}{2}$ inch and with the adapter any larger hole.

Note these special points

Always closed, is practically air tight and dust proof. Marble cannot be removed, just enough ink on the pen and none on the children's fingers. Ink will not clog in it. Regular finish, Black Rubber, if desired, Nickel Plated.

Write for sample and prices on our full line



SQUIRES INKWELL CO., 941 Liberty Ave., Pittsburgh, Pa.

A FRONT RANK

School Heater and Ventilator

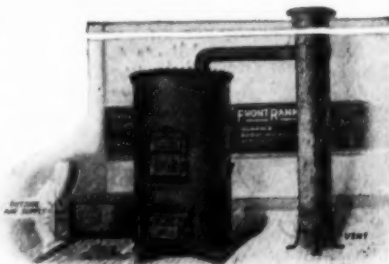
will not only assure more comfort and better health for both pupils and teacher in your school; it will

Save Your Fuel

and repair bills, and run satisfactorily with a very minimum of attention and trouble. The best schools are installing the **FRONT RANK**. Get in line.

If your dealer doesn't handle the **FRONT RANK** write for illustrated literature.

Haynes-Langenberg Mfg. Co.
4048 Forest Park Blvd. ST. LOUIS, MO.



IMITATED FROM COAST TO COAST BUT NEVER EQUALED



NOT THE CHEAPEST BUT UNQUESTIONABLY THE BEST

The American Crayon Company, of Course

TEACHERS' SALARIES

(Continued from Page 58)

principals and supervisors have been given increases of \$25.

Columbus, Neb. The board has offered a bonus of \$100 to teachers who remain in the service for the full year.

Beverly, Mass. The teachers have been given increases of \$150.

Fort Worth, Tex. The citizens have voted an increase in school taxes to permit of increases in teachers' salaries.

Ottumwa, Ia. The board has raised the salary at teachers receiving \$93.50 to \$100, and those receiving less than \$93.50 were given monthly increases of \$6.

Lenox, Mass. The board has fixed the minimum salary of teachers at \$100 per month.

Scranton, Pa. The board has raised the salary of Supt. S. E. Weber from \$5,000 to \$6,000 and has granted increases of ten per cent to the janitors.

Spencer, Mass. The board has given increases of \$100 in salary to all teachers who have taught three years or more.

Hastings, Neb. The board has adopted a schedule of salaries ranging from a minimum of \$80 to \$127 per month, with \$255 for high school principals and superintendents.

Biddleford, Me. The board has adopted a salary schedule providing for a minimum of \$600 and a maximum of \$1,500 for grade teachers, and a maximum of \$1,500 for women teachers in the high school. Increases of \$150 to \$200 are to be given high school teachers, \$125 for special teachers and \$100 for grade instructors. Additional increases have been given to a limited number of teachers in order that no teacher of eight years or more experience may receive less than \$750 a year.

Annual increases are based on the following plan: Class C, \$50 a year; Class B, \$100 a year, and Class A, \$200.

Cincinnati, O. Kindergarten assistants, kindergarten directors, elementary teachers and principals, directors of departments, night school principals and teachers have been granted increases in salary by the board. The increases are conditioned upon the approval of the county budget commission.

Concord, N. H., has given increases of \$50 to all teachers.

North Bend, Ore. The board has fixed the minimum salary for grade teachers at \$85 per month and for high school teachers at \$100.

Governor Edge of New Jersey has signed a bill providing that every state shall be paid a minimum salary of \$70 a month.

Yakima, Wash. In addition to general raises in salary, the board has offered a bonus of \$50 to all teachers who remain thruout the school year. The bonus is to be paid in installments of \$25 at the end of each semester.

Spokane, Wash. The board has granted increases of \$150 to teachers and principals of the grade and high schools. The minimum salary for grade teachers has been fixed at \$850 and the maximum at \$1,100. Principals will be given a maximum of \$2,100 and a minimum of \$1,400.

Walla Walla, Wash. Under a new schedule, grade teachers' salaries have been fixed at \$850 to \$1,150, high school teachers at \$1,200 to \$1,500 and heads of departments have been raised from \$1,600 to \$1,700.

Paulsboro, N. J. The board has increased the salaries of the teachers from \$150 to \$300 per year.

The school board of Malden, Mass., has raised the maximum salary by \$100. Grade teachers are limited to \$1,000, women high school teachers to \$1,200 and men high school teachers to \$1,800.

The Illinois House has passed a bill providing for a minimum salary of \$80 a month for teachers of the state. Districts which have levied the maximum taxes and are unable to comply with the provisions are exempted from compliance with the law.

Leominster, Mass. Beginning next September, grade teachers and principals will be given increases of \$100 and high school teachers increases of from \$50 to \$100.

Belchertown, Mass. The board has raised the salaries of the teachers in the grade and district schools from \$550 to \$650.

Charlton, Mass. Increases of approximately \$200 have been given to the teachers for the next year.

Galesburg, Ill. Bonuses of \$50 have been offered to teachers who complete the school year.

A new schedule of salaries has been adopted for Cherokee County, Ia. The scale is based on the qualifications and experience of teachers and provides that teachers holding normal school certificates shall be paid \$81.25 per month; after one year's experience, \$93.75 and after two years' experience, \$100. Teachers holding first grade certificates, \$93.75; two years' experience, \$100. Teachers holding second grade uniform county certificates, \$75; after one year's successful experience, \$81.25.

Cleveland, O. Normal school teachers have been reappointed at increased salaries of \$200 a year.

Lima, O. The teachers have been given increases of twenty per cent in salary.

The school board of Columbus, Neb., offers the teachers bonuses of \$100 to be paid at the end of the year where the school year has been completed.

St. Louis, Mo. The board has granted increases of \$10 to \$12 a month to the teachers.

The teachers of Springfield, Mass., recently petitioned the board for the salary increases of twenty per cent which were provided for in the two mill levy voted by the citizens. The levy was voted with the understanding that the increases were to be given but the board intimated that it was not in position to grant the full increase and maintain the schools at the same high standard. A general readjustment of salaries in accordance with the length of service and teaching ability of the instructors is contemplated.

The A. B. Jones Company of Jonesboro, Ark., recently made a gift of \$250 to the superintendent to supplement the funds of the district in order that better wages may be paid the teachers. A number of other business concerns have followed the example of the Jones Company.

Chicago, Ill. The board has raised the minimum salary of elementary teachers from \$775 to \$1,000 and the maximum from \$1,500 to \$1,600. Increases of \$25 will be given yearly. The high school scale provides for a minimum of \$1,300 and a maximum of \$3,100, with yearly increases of \$115.

Principals of elementary schools will get from \$2,100 to \$3,850 and high school principals from \$3,360 to \$4,720.



FLAGS

ALL NATIONS—ALL SIZES
FLAG POLES AND
ACCESSORIES

THERE IS NO BETTER
FLAG MADE THAN OUR
"Old Glory"

OUR
BRAND
"GUARANTEED"
"Old Glory"
EUREKA
BUNTING
"O.-G."
COTTON

Buy the flag with either of our "trade mark" brands as shown above. They are marks of "value." Our "O. G." Cotton is fast color and a superior flag cloth, suitable for interior purposes. Can be used outside, but not as serviceable as our "EUREKA" Bunting, an imitation wool, fast color, moth-proof bunting, with a durability equal to wool at about one-half the cost. Meets government specifications and requirements both in count and tensile strength. Our "Old Glory" wool is the BEST MADE flag with the BEST MATERIALS. All our flags are made for special school service. You can get them from your jobber or dealer. We Guarantee our "Eureka" Bunting to be U. S. Government specifications and same grade and quality as is used by the U. S. Government.

SILK FLAGS—SEWED AND PRINTED—Paper Flowers and Decorations
We Rent Flags—We Repair Flags—Everything Patriotic

"Old Glory" Manufacturing Co.

24-28 S. Wells Street

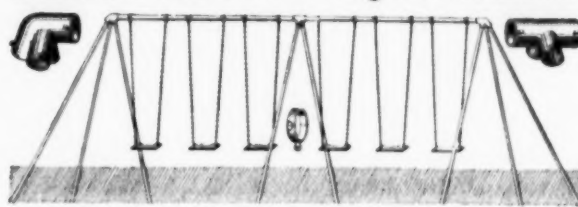
CHICAGO

Phone Franklin 5030

STEEL FLAG POLES

AND

PLAYGROUND EQUIPMENT



Write for Folder S

Our Prices are so low that you will certainly be interested.

Factories: Newark, N. J. and Milwaukee, Wis.

NEWARK STEEL POST CO.

NEWARK, N. J.



LOYALTY EDUCATION IS THE NATIONAL NEED

SCHOOLS EVERYWHERE ARE
EQUIPPING ALL ROOMS WITH OUR

24x36" Heavy Silk U. S. Flags Mounted
on Bronzed Spear Head Staffs

Special price this month, dozen \$15.50

THE CHICAGO FLAG & DECORATING CO.

Manufacturers

U. S. AND FLAGS OF ALL NATIONS



1315-1325 Wabash Avenue

Chicago, Illinois



You receive full value
when you buy

a FLAG of
STERLING Double Warp
All Wool Bunting

Reg. U. S. Pat. Off.

A flag of sterling quality

or of

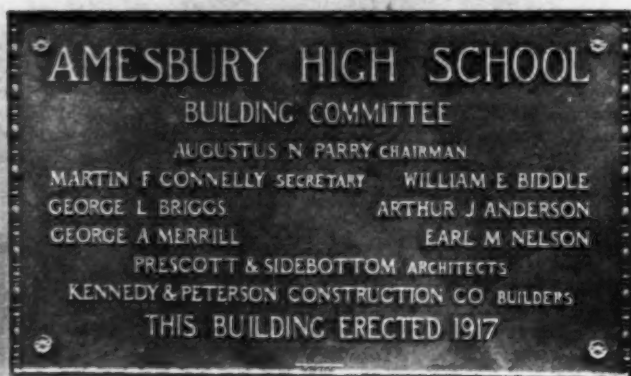
Sold By
Dealers
Everywhere.

DEFIANCE Two-ply
Cotton Bunting

Reg. U. S. Pat. Off.

A flag that bids defiance to the weather.

Made only by ANNIN & CO., New York



HONOR ROLLS—MEMORIAL TABLETS—IN BRONZE

MODELED, CAST AND FINISHED BY

ALBERT RUSSELL AND SONS CO.

125 MERRIMACK ST.

NEWBURYPORT, MASS.



Bronze Tablets

In Honor of the Men Who Fought in the World War
Bronze Memorial Tablets, etc.

All to Special Design. Designs and Estimates Free.
Send for Free Illustrated Booklet.

Jno. Williams, Inc., Bronze Foundry

OFFICE: 559 WEST 27th ST., NEW YORK

FLAGS

NATIONAL AND FOREIGN OF EVERY DESCRIPTION

OUR "PARAMOUNT" QUALITY IS PARAMOUNT

STEEL TUBING FLAG POLES

UNQUESTIONABLY THE BEST VALUE ON THE MARKET

FLAG ACCESSORIES

BRACKETS, EAGLES, SPEARHEADS AND TRIMMINGS

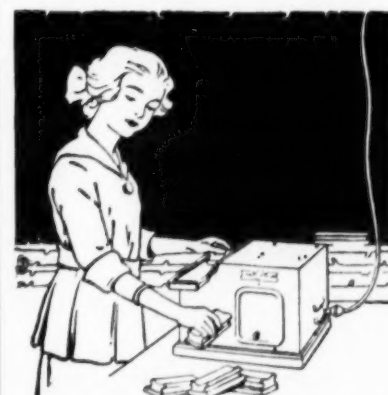
THE CHICAGO CANVAS GOODS & FLAG CO.

(CHAS. KELLY, PRES.)

180 NORTH DEARBORN ST.

CHICAGO

PICTURE A NEAT SCHOOL MA'AM,



—with a kind pleasant smile,
making a chap feel happy
that he has done his lessons
right, wanting to ask her if
she would please let him clean
the Erasers with a Simplex.
Order at once—Electric or
Hand Driven—and assist in
the great Health Drive now
inaugurated in the Schools.

For sale by all of the 120
School Supply Houses.

The electric shown above is driven by a
universal motor, that will operate on any
and all electric currents. Cleans 100 eras-
ers thoroly in 15 minutes. The only san-
itary and hygienic eraser cleaner made.

JAMES LYNN COMPANY

14 East Jackson Blvd., CHICAGO, ILL.

Home of the Permanent Exhibit

When
in
New York



Visit
this
Exhibit

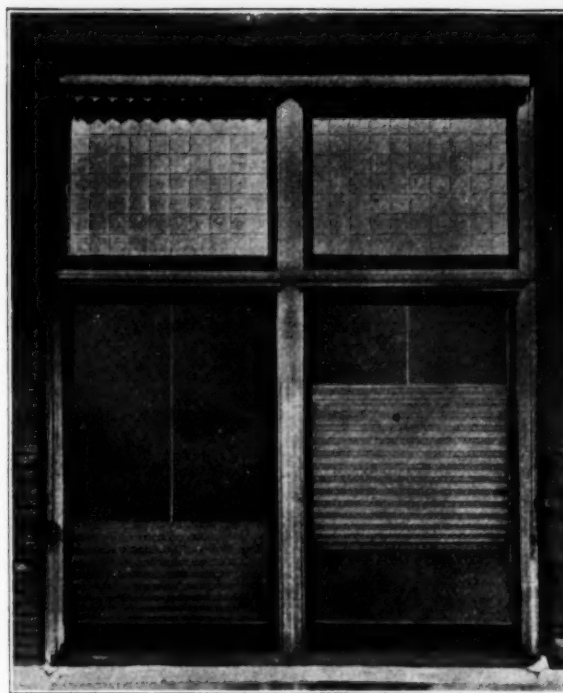
We are showing the Newest and Best in School Furniture, Supplies, and Equipment of all kinds.

This exhibit is visited yearly by thousands of School Superintendents, Principals, and Teachers.

Write us for particulars.

EDUCATIONAL EXHIBIT COMPANY
70 Fifth Avenue NEW YORK CITY

THE IDEAL ADJUSTABLE WINDOW SHADE PERFECTLY SIMPLE—SIMPLY PERFECT



The three chief points aimed at in Window Shades are: Light, Ventilation and Privacy. In Perennial Shades are to be found these three points so thoroughly covered as to justify the claim, "Simply Perfect." The style of operation is so easy as to justify the claim, "Perfectly Simple."

Write for further information and our latest circular.

PERENNIAL SHADE CO.
FARIBAULT, MINNESOTA

FREE AND EQUAL.

(Continued from Page 28)

and only one thru the second. Instances of this kind are innumerable. Several districts are levying thirty mills and one topnotcher has an imposing total of 51 mills, and yet the federal report states that the average for the whole nation is two mills.

Some day when I have time,—when two Sundays come hand-running as we say in our country, I am going to make and color a school district map of the United States. I am sure that it will show that the burden of child education rests upon the different communities in a way that is both impractical and grossly unfair.

There are several remedies proposed in as many states to correct this fault. At least one good solution can be found to apply to local conditions anywhere. No doubt some well meaning citizens are working on a plan now in your state. It would be a good thing to look into their scheme and if it is foolproof, help it along.

It has long been the ideal of American schoolmen to furnish education that is free. Another step in the right direction is to make the burden rest more equally everywhere.

DEMOCRACY IN SUPERVISION.

(Continued from Page 30)

militaristic type. Blessed be the tie that binds. It is not red tape, nor any mechanical binder, however elaborate; but as Dewey says, "A society which makes provision for participation in its good of all its members on equal terms, which secures flexible readjustment of its institutions thru interaction thru the different forms of associated life,.....and which gives individuals a personal interest in social relationships and control, and habits of mind which

secure social changes without introducing disorder.

THE LAW, THE PROPHETS, AND BILL.

(Continued from Page 36)

If you are at all a close reader of the papers you cannot fail to notice that the trend in industrialism is much along the same lines; to open up, to give the employe a chance for self-expression. A concrete example is that of the Standard Oil Company.

Boys are usually fair minded, and are quick to realize justice or injustice. The normal boy will not willingly violate a confidence. It is his code of honor not "to squeal". Tradition sets up its barriers between master and boy. Most school rows are like other rows; they are a result of misunderstandings, and many misunderstandings come from either a limited or overly one-sided view.

Another year passed quickly. Our school grew; we had many new students who returned to us from the private schools, while we lost few compared with former years.

Of course, all was not plain sailing by any means. Several nasty situations came about at one time and another, but eventually they were straightened out without any really very serious difficulty. Discipline was occasionally upset by some untoward incident. But we failed to find a malicious spirit at the bottom when we had thoroly delved into the affair.

June was at hand, and Bill had reached the end of his four years. He was sure to graduate; and altho he did not appear on the stage as the valedictorian or salutatorian by any means, largely because we had done away with this collegiate custom that has no place in a high school, at the same time he was selected

by the unanimous vote of the faculty as one of the five graduates best qualified to represent his class as a speaker.

Some way or other, I had made up my mind to graduate at the same time with Bill. The fact is, an opportunity had come to go to a larger and better paying school, and I could not well refuse it.

I am glad Bill and I went out together. When it came time commencement night for the last farewells to be said, Bill's father, as President of the Board, made one remark that was worth all the four years' effort.

"From the standpoint of pedagogy, I don't know how good a schoolman Mr.—— (that's me!) is; I am told by the city which has taken him that he is highly regarded. But of one thing I am sure; he has been good to my boy. And, after all, as we grow older, about all we have to live for is our children."

Bill and I walked home together that night. And what we said to each other is entirely our own affair, and no one else will ever know.

For Bill and I are friends, and our friendship is entirely a matter of our own concern.

On reading this over my wife remarks:

"Why, I know who you mean by 'Bill'. He wasn't a bad boy at all."

On reflection, I believe she is right.

After all, maybe it is worth while—this business of running schools. It certainly is, if there are enough "bad boys" around to make it worth while!

Residents of the south side of Oak Park, Ill., have registered their opposition to the proposed bond issue for a new high school in the northern part of the suburb. The objection to the location is that the school is too far for students of the south side.

SCHOOL DESKS

Costs are Advancing
Order the Furniture you need to bring
your school up to efficiency.

There is no prospect of lower production cost for a year at least. **BETTER BUY NOW.**

Buy Now—Today



"THE ECONOMIC"

Opera and Folding Chairs,
Church and Lodge Furniture

ORDER FROM STOCK NEAREST YOU

Stafford Desks carried in stock by

J. H. Pence, Roanoke, Va.
Goldsmith Book and Stationery Co., Wichita, Kans.
Houston Show Case & Mfg. Co., Houston, Texas
G. C. Everett, Baton Rouge, La.
Omaha School Supply Co., Omaha, Nebr.
Western School Supply Co., Boise, Idaho
John W. Graham & Co., Spokane, Wash.
Lawman & Hanford Co., Seattle, Wash.
W. E. Finzer & Co., Portland, Ore.
E. D. Edwards, Oklahoma City, Okla.
Morris Bros., Stockton, Calif.
B. E. Calkins Co., Butte, Montana.
Mississippi School Supply Co., Jackson, Miss.

E. H. STAFFORD MFG. CO., Chicago, Ill.

Ask for Catalog A. J. mailed free

SILICATE VENEER PLATE
BLACK BOARD

Why don't you purchase the best goods for your school? Our revolving blackboards and roll blackboards have been in constant use in all the Public Schools in New York, and the principal cities for thirty-six years, which is a sufficient guarantee. Send for our illustrated catalog and discount sheet and compare prices with other manufacturers.

N. Y. Silicate Book Slate Co.

20-22-24 Vesey Street
NEW YORK

NATIONAL DUSTLESS CRAYONS

Chalk Talks

WE make just one article, Dustless Blackboard Crayon, and we make it so good that when once tried it means a satisfied customer. Why not get acquainted with the superior merits of **National Dustless Crayon**? Note their easy writing and erasing qualities. They do not drag, but write with a velvety smoothness.

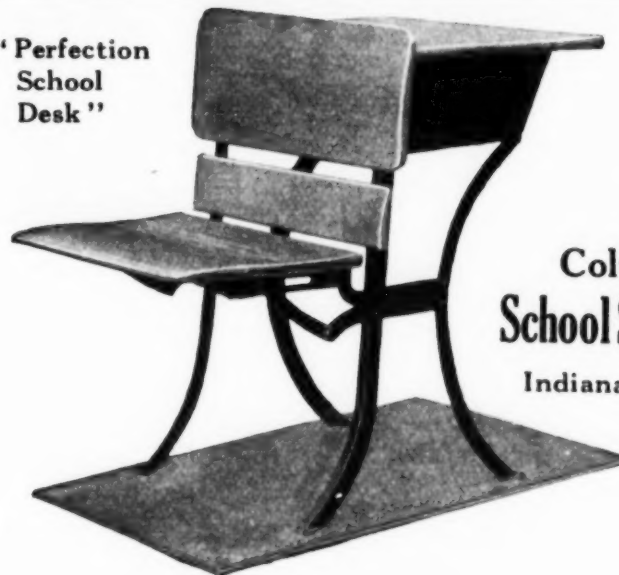
Write for a dozen samples and compare them with any blackboard crayon made and satisfy yourself that you need **National Dustless Crayon**.

Your dealer is waiting to fill your future orders.

THE NATIONAL CRAYON COMPANY

WEST CHESTER, PA.

"Perfection
School
Desk"



**Columbia
School Supply Co.**

Indianapolis, Ind.

Subscribers' Free Service Department

We invite all our readers to ask questions of any kind on any problem of school administration, and we promise to answer them fully and promptly. If we must, we shall investigate specially, charging the trouble and expense to our editorial appropriation.

If you are interested in the purchase of any of the items listed below, or if you want catalogs for your files, do not hesitate to check this list and mail it to the address given below:

Adjustable Window Shades.....
Agricultural Apparatus.....
Air School Furniture.....
Air Washers.....
Art Supplies.....
Athletic Field Apparatus.....
Auditorium—Chairs.....
Lighting.....
Scenery.....
Batteries—Storage.....
Bells.....
Biology Supplies.....
Blackboards—Composition.....
Slate.....
Bookbinding Supplies.....
Bookcases—Sectional.....
Book Covers.....
Bronze Tablets.....
Builders' Hardware.....
Caps and Gowns.....
Chairs.....
Kindergarten.....
Charts—Geographical.....
Color.....
Class Pins.....
Clock Systems.....
Secondary.....
Program.....
Costumes for Plays.....
Crayons.....
Crayon Troughs.....
Deafening Quilt.....
Deodorizers.....
Desks—Pupils.....
Teachers.....
Dictionary Holders.....

Diplomas.....
Disinfectants.....
Display Fixtures.....
Domestic Science Equipment.....
Benches.....
Stoves.....
Door Mats.....
Drawing Supplies.....
Tables.....
Drinking Fountains.....
Duplicators.....
Dusters (Sanitary).....
Electrical Supplies.....
Apparatus.....
Erasers.....
Eraser Cleaners.....
Fences.....
Filing Cabinets.....
Fire Alarms.....
Fire Escapes.....
First Aid Cabinets.....
Flags.....
Floor Dressing.....
Flooring.....
Forges.....
Fumigators.....
Furniture.....
Adjustable.....
Movable.....
Steel.....
Globes.....
Gymnasium Apparatus.....
Heaters (Rural School).....
Heating Apparatus.....
Industrial Collections.....
Inks.....
Ink wells.....
Janitor Supplies.....

Kindergarten Supplies.....
Laboratory Furniture.....
Laboratory Shade Hoists.....
Lathes.....
Library Shelving.....
Liquid Soap.....
Lockers.....
Loose-Leaf Books.....
Manual Training Supplies.....
Benches.....
Maps.....
Metal Working Materials.....
Machinery.....
Mimeographs.....
Motion Picture Films.....
Machines.....
Natural Science Apparatus.....
Natural Science Cabinets.....
Oil Color Materials.....
Paints and Varnishes.....
Paper.....
Paper Towels.....
Partitions.....
Pencils.....
Pencil Sharpeners.....
Pens.....
Phonographs.....
Physical Geography Supplies.....
Pianos.....
Pictures.....
Plaster Casts.....
Playground Apparatus.....
Plumbing Fixtures.....
Portable Schoolhouses.....
Printing Supplies.....
Program Clocks.....
Projection Lanterns.....
Raffia and Reed.....
Record Systems.....
Roofing.....
Rubber Matting.....
Rulers.....
Safe Cabinets.....
Sanitary Appliances.....

Scientific Apparatus.....
Scissors.....
Sewage Disposal.....
Shelving.....
Skylight Operators.....
Slating Liquid.....
Stage Equipment.....
Lighting.....
Scenery.....
Stationery.....
Statuary.....
Stenciling Materials.....
Sweeping Compounds.....
Tables.....
Drafting.....
Kindergarten.....
Talking Machines.....
Telephones.....
Temperature Regulation.....
Terra Cotta.....
Toilet Paper.....
Tools.....
Light Woodworking.....
Leather Work.....
Jewelry Work.....
Metal Work.....
Typewriters.....
Vacuum Cleaning Systems.....
Ventilators.....
Vises.....
Wagons.....
Wall Burlaps.....
Wall Paints.....
Waste Baskets.....
Water Color Materials.....
Water Pressure Systems.....
Water Purifiers.....
Weather Strips.....
Weaving Implements.....
Window Shade Adjusters.....
Window Ventilators.....
Wire Window Guards.....
Woodworking Machinery.....
Weaving Yarns.....

Additional Wants.....

AMERICAN SCHOOL BOARD JOURNAL, Milwaukee, Wis.

Gentlemen—We are interested in the items as checked above. If you will place us in touch promptly with manufacturers you will be of help to

(Signed)

City..... State.....
Official..... Bids.....
Title..... Wanted by..... 191.....

++

CLASSIFIED WANTS

++

RECORD SYSTEMS

The Teacher's Standard Class Book—provides a simple and adequate method of recording all class records. Price 60 cents postpaid. The Central School Supply Co., 313 West Main St., Louisville, Ky.

PAINT AND VARNISH REMOVER

Casmire Process—for school seat cleaning, removes old varnish, paint dust and grime. Write today for further particulars and estimate of the cost of this method. Also tell us how many

Copy for this page must reach us at Milwaukee not later than the 15th, preceding the date of issue. All advertisements are guaranteed. The rate is 10 cents per word, per insertion, minimum of fifteen words accepted.

seats you wish to renovate. The National Wood Renovating Co., 319 East Eighth Street, Kansas City, Mo.

CATALOGS

Baler—An Alsteel Fire-proof Waste Baler, turns your waste into profits. Write for circulars and our special proposition to schools. Alsteel Manufacturing Co., Battle Creek, Mich.

Hansen's Clocks—For positive, punctual and lasting service, are the best known. They are easy to install and easy to manage. Write for a copy of our catalog today. Hansen Manufacturing Co., Princeton, Ind.

Furniture Catalog—We shall be pleased to send anyone literature covering our school furniture. Send for

yours today. Illinois Refrigerator Co. Morrison, Ill.

Pencil Catalog—Write for your copy today. Jos. Dixon Crucible Company, Dept. 31-SJ, Jersey City, N. J.

INCREASE HIGH SCHOOL ATTENDANCE

"Will it pay me to go to High School?" is the title of an inspiring little booklet to boost your high school attendance. Sample copy 5 cents. 100 copies \$2.00. Thomas E. Sanders, Racine, Wisconsin.

2 OF THE 15 VARIETIES

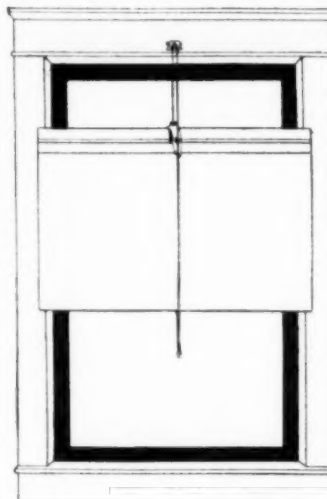


**STEELE'S
DUCK
SHADES**



Write for Prices, Catalog and Free Sample

OLIVER C. STEELE MFG. CO.
SPICELAND, IND.



HAMILTON WEAR-PROOF TAN DUCK ADJUSTABLE SHADES

The Pioneer Frampton and other popular styles. With and without spring rollers. Hamilton tan duck wears like iron and is proof against scorching sun, beating wind and drenching rain. Hamilton wear-proof shades in all styles to suit every condition. Guaranteed. Cover all the window or part of either sash. Furnished complete, ready to hang. The "quality" line; favorites in schools, factories, public buildings and residences. Distributed by leading supply houses.

Write for sample of material and catalog.

HAMILTON MANUFACTURING CO.
12th & Chase Sts.
ANDERSON, INDIANA

THE MEASUREMENT OF TWO ELEMENTARY SCHOOL BUILDINGS

(Continued from Page 47)

it were not for these rooms, the score would fall considerably lower.

Conditions Found to Exist in School Building No. 19.

The layman will readily recognize that any school building to which the judges can allot only 362 out of 1,000 points must be totally lacking in the facilities that school children need. School building No. 19 is a labyrinthine structure so arranged that teachers are greatly hampered in their efficiency. The upkeep on this building is better than that of building No. 51, but only the expenditure of large sums will suffice to make this building anything less than a dangerous firetrap in which the lives of children may be sacrificed. The problem of supervising and teaching children in this building is made many times more difficult because of the inadequate facilities that are provided. Only a visit to the building will prove to the layman the futility of retaining it for the purpose of housing school children of New York City.

The Measurement of School Buildings No. 1 and No. 19 of the New York City School System on the Strayer Building Score Card.

	Maximum Score	School No. 1	School No. 19
A. Location	55	25	30
B. Drainage	30	3	5
C. Size and Form	40	1	10
I. Site	125	29	45
A. Placement	25	6	6
B. Gross Structure	60	25	19
C. Internal Structure	80	37	30
II. Building	165	68	54
A. Heating & Ventilating	70	24	15
B. Fire Protection	65	48	18

C. Cleaning System	20	2	10
D. Artificial Lighting	20	8	12
E. Electric Service	15	8	6
F. Water Supply	30	12	7
G. Toilet Facilities	50	14	11
H. Mechanical Service	10	0	0
III. Service Systems	280	116	79
A. Location & Connection	35	20	10
B. Construction & Finish	95	48	47
C. Illumination	85	50	36
D. Cloak Rooms & Ward robe	25	10	10
E. Equipment	50	15	17
IV. Classrooms	290	143	120
A. Large Rooms for General Use	65	17	17
B. Rooms for School Officials	35	18	21
C. Special Service Rooms	40	30	26
V. Special Rooms	140	65	64
Total	1000	421	362

PERSONAL NEWS

Mr. John E. Alman of Riverside, Cal., has accepted the principalship of the high school at Redlands.

Supt. Z. C. Thornburg of Des Moines, Ia., has been given a fifteen per cent raise in salary, making the annual salary \$5,750.

Mr. John N. Munson, Deputy Superintendent of Public Instruction for Michigan, has resigned to become head of the training department at the Mt. Pleasant Normal College. Mr. Munson enters upon his duties October first.

Mr. J. J. Schafer has been elected superintendent of schools at Midland, Mich., to succeed J. J. Mott.

Mr. J. W. Sewell, for 24 years connected with the schools of Nashville, Tenn., has resigned to become head of the English department of the Newman Manual Training School, New Orleans, La. Mr. Sewell is the author of the texts on English grammar, published by the J. B. Lippincott Co., of Philadelphia.

Mr. Morton Snyder, state high school inspector

for Connecticut, has resigned to accept a principalship at Chicago.

Mr. R. R. Rogers, for the past 34 years connected with the public schools of Jamestown, N. Y., as principal and later as superintendent of schools, has resigned. Mr. Rogers is succeeded by Mr. Milton J. Fletcher.

Superintendent Carroll R. Reed of Rockford, Illinois, has been reelected for a two-year term and his salary increased to \$5,500 and \$6,000 per year respectively.

Mr. F. M. Muhlig, superintendent of Will County, Ill., has resigned to become assistant superintendent of public instruction for the state of Illinois.

Mr. D. H. Brown, superintendent of schools of Miami County, Ind., has been elected superintendent of city schools at Peru. Mr. Brown succeeds E. B. Witherow, who has become state high school inspector.

Mr. F. A. Wheeler of Monson, Mass., has accepted the superintendency of the Longmeadow and Wilbraham district at an increase in salary. Mr. Wheeler is succeeded at Monson by Mr. Francis S. Brick of Turners Falls.

Mr. Harvey C. Hull has been elected to succeed R. Z. West as superintendent of the Rockport and Rockland, Mass., school district.

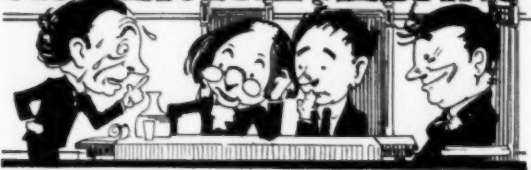
Mr. George I. Aldrich, of Brookline, Mass., who recently resigned after twenty years of service, has been given the title of superintendent-emeritus by the school board.

Mr. O. A. Morton has been elected superintendent of schools at Orange, Mass., to succeed J. F. Allison.

Mr. R. G. Jones who has been acting superintendent of schools, will have direct charge of the office during the next year, leaving Supt. Spaulding free to devote more attention to field work.

Mr. George H. Webber of Summerville, S. C., has been elected superintendent of schools at Beaufort. During his seven years' incumbency at Summerville, Mr. Webber was active in boy scout and girls' camp fire organizations and first-aid instruction, and during the war he was an enthusiastic worker for the Red Cross.

AFTER THE MEETING



THE SCHOOLMAN OF THE LONG AGO.

A tribute to the teacher is more rare in the daily press than a criticism of her work. But in the "dusty cabinet of memories" every editor has some treasures of boyhood days as the following from the Haverhill Gazette illustrates:

"Deep down in our hearts, sandwiched in somewhere between the memory of lisping prayers at mother's knee and the recollection of the old swimming hole, there is a shrine perhaps faded and obscure, but forever sacred to the first budding instincts of love awakened by a pretty school teacher of the long ago.

"No man need be ashamed of that recollection, for it was adoration at once beautiful, pure and holy albeit shy, awkward, confusing and requited. Every male—that is, every healthy and normal male—at one period in his life fell madly, desperately in love with his school teacher. How the passion fairly consumed him! She, his ideal, the One Woman, was the most desirable thing in the whole wide world! How he yearned for some miracle of opportunity to prove the depth of his devotion! What agony and trepidation when she saw him not as he worshipped from afar! What suffusion of blushes and digging of toes into the floor when from her high pedestal the teacher deigned to smile upon him! What zest was put into the punches when, stung by primal jealousy, the love-smitten boy pounded the hated visage of a rival who had found favor as the "teacher's pet."

"The chances are that the object of our adolescent amatory attentions did not know the place she occupied in the grim tragedy of our boyhood, or if she did she simply smiled in the exasperating and maddening way that pretty teachers used to have. Perhaps she secretly felt the divine flattery of this splendid homage. Perhaps, we cannot tell, her pink cheeks glowed a little brighter at the thought that a disparity of say some twenty years separated her from some half-realized dream of happiness. So in savage silence and maybe under the cruel jibes of family and playmates, we learned the deepest lesson of life that is not taught in books.

"The hard years were to come and go, perhaps even those lisping prayers were to be forgotten through neglect, and oceans of water were to flow over the old swimming hole, but a lasting image remains burned into the memory. She was the distant and unattainable star of a boyhood firmament, and any man can close his eyes and visualize again that perfection of created things in Tam o'Shanter and white shirt waist standing in the schoolroom door and for whom he would lay down his life or give away his dog.

"What would life be without love and who has done more to plant the sometimes grimy feet of youth upon the royal road of manhood than the school teacher—the pretty one in the Tam o'Shanter? What? Don't they wear them any more? Well, never mind; ours does and she still stands in the doorway and smiles a welcome at the bashful, skinny little fellow away down at the end of the line."

An Object Lesson.

The patient teacher was trying to show the small boy how to read with expression.

"Where-are-you-going?" read Johnny laboriously, with no accent whatever.

"Try that again," said the teacher. "Read as if you were talking. Notice that mark at the end."

Johnny studied the interrogation mark a moment, and an idea seemed to dawn upon him; then he read out triumphantly:

"Where are you going little buttonhook?"

A Friend in Need.

Mr. Proverst has just finished shaving and in accordance with the ordinary practice was applying a liberal dose of talcum powder to his face, incidentally sprinkling the floor with it. Mrs. Proverst passing by noticed this and said, "Don't get that powder all over the floor."

Four year old Leonard was watching and his eyes gleamed, "Go ahead Pa," he cried "I'll help you."

What's the Use o' Tryin'?

Ain't no use o' tryin', daddy,
Can't do nothin' new,
Hav'ter do the same old
Things the others do.

When I try recitin' lessons
Then that teacher looks at me
Says "John-Jacob, you must say it,
As the rest do; can't you see?"

So she skips me, marks me zero,
An' goes on to little Joe
Who says ev'ry single word right
Whut they mean, he doesn't know.

I jes' want ter use my own words,
Say my lessons as I please.
'Stead o' themes, write little stories
'Bout the birds an' brooks an' trees.

So there jes' ain't no use tryin'
Can't do nothin' new
Jes' get zero 'cause I don't do
'Zactly like the others do.

Wise and Otherwise.

"Father," said the minister's son, "my teacher says that 'collect' and 'congregate' mean the same thing. Do they?"

"Perhaps they do, my son," said the clergyman; "but you may tell your teacher that there is a vast difference between a congregation and a collection."

Rooms for Rent.

Even college professors furnish some of the humor of school life. It was the registrar of a large university who, to an inquiry for a suite of "large, light, airy rooms," answered:

"Why, I don't just recall any now; but I've got a lot of 'em in my head."

And a flustered professor told a class of young ladies, "You may have fifty minutes of the hour to tell me what you know on the subject, and I will take the remaining ten and tell you what I know."

Miss French: "Where is your excuse?"

Freshy: "Haven't got it."

Miss French: "Did you forget it?"

Freshy: "No."

Miss French: "What did you do?"

Freshy: "Didn't remember to bring it."

A third grade teacher who is very much interested in social work, regularly visits the homes of her pupils. In making the rounds, last fall, she came into the yard back of a tenement where a little colored boy of her class lived, and found a burly negress unmercifully beating him.

"Here, here," she said, grabbing the woman's arm, "you must not do that. What has he done, anyway?"

"Done? Ef you wants to know, he's done lef de chicken house do' open, an' all dem chickens got out."

"Well, that is not so serious," said the teacher. "Chickens always come home to roost."

"Come home!" snorted the woman; "dem chickens will all go home! An dey won't roost; dey'll roast."

A New School Waste Basket.

The Erie Art Metal Company has just announced the marketing of a new series of the well known Dan-Dee waste baskets. The new series is of the square type and incorporates in its construction durability, sanitation, safety against fire, and attractive appearance which have characterized the well known Dan-Dee



Round Baskets. The new square baskets are made in three styles with a flat bottom and with a welded leg or angle leg. The legs have a permanent smooth riding edge so that they will not injure any floor surface. They are rigidly reinforced to prevent bending.

The new square baskets are finished in bronze, green, oak, and mahogany and are sold with a ten year guaranty.

BUYERS' NEWS COLUMN

NYSTROM ISSUES RACIAL MAP.

A. J. Nystrom & Company of Chicago, Ill., have just issued a new wall map having a twofold purpose. The map contains on one side the races of Europe and on the other an outline map of the continent of Europe. The racial areas are shown in a graphic manner by distinguishing colors, with the names of the races in red lettering. Names of political divisions and place names, also political boundaries as they existed at the outbreak of the war, are printed in subdued grey.

The new map is an invaluable aid to the teacher and pupil and will be found particularly instructive in connection with the study of geography and the history of Europe. It may be profitably used in connection with the study of current events.

A NEW ROWLES CATALOG.

E. W. A. Rowles Company, Chicago, have just issued Catalog 29, containing 157 pages devoted to a varied assortment of school supplies and equipment. The catalog lists charts and globes, dictionaries, stationery, pencils and pens, athletic equipment, manual training and domestic science equipment, classroom, office and assembly room furniture, filing equipment, bookcases, hardware, drawing supplies, industrial arts supplies and chemical supplies.

VICTOR EDUCATIONAL RECORDS.

The Victor Talking Machine Company has recently announced the following records which are of interest to school authorities:

La Traviata—Ah fors e lui (Verdi)—rendered by Mme. Galli-Curci.

Sheherazade—Festival at Bagdad (Rimsky-Korsakow) rendered by the Philadelphia Orchestra.

In connection with these records it will be of interest to school authorities to know that the Victor Talking Machine Company has recently made arrangement by which the red seal records of greatest artists will be reduced in price from \$2.00 and \$3.00 to \$1.00 and \$1.50. This reduction will make available for school use many records that have been considered prohibitive in cost.

A HANDBOOK OF SCHOOL VENTILATION.

At no time has the importance of proper school ventilation taken on a larger meaning, or the real value of it been realized to a great extent than is the case at the present time. Considerable study, thought and research have been done along school ventilation lines to evolve systems that will be economical, easy to operate and at the same time health conservers in the schools.

In this connection, there has recently been issued by the American Blower Company a pamphlet on "Three Questions Concerning School Ventilation," prepared by Dr. E. Vernon Hill of Chicago. The pamphlet, which contains 43 pages, has been issued for the benefit of the school trade, but should be found of help to teachers and principals, and members of boards of education.

The pamphlet takes up the subject of ventilation from many angles and makes a thoroughly readable treatise on the necessity and the methods of obtaining proper ventilation in schools. Interspersed with the text matter, are a number of illustrations of schools in various parts of the country, together with charts, graphs and tables—all extremely valuable to anyone who desires to understand fundamental principles and accepted methods.

For information about the pamphlet, address the American Blower Company at Detroit, Mich.

The sole woman reporter at the peace conference in Paris was Miss Clare Allison, an English shorthand reporter who has done some remarkable work in reporting English, French, and German. Miss Allison writes the Isaac Pitman shorthand and is master of a French and a German adaptation of this same system. She has thus been able to report addresses in all three languages.

A FINER TYPEWRITER AT A FAIR PRICE

Was
\$100



Now
\$57

Pupils Learn Faster on the Oliver

It is amazing, the progress that pupils make on the Oliver. They learn faster on this typewriter because it is so much simpler in design and construction. They get the knack of running the machine right away. And they pick up speed

faster on the Oliver because they practice more diligently on this machine. The pupils like to use a typewriter so easy to operate. Naturally, the more that a student likes a typewriter the more interest he or she will take in the study, and the faster the progress.

Special Co-operation to Schools

The Oliver Typewriter Company offers co-operation to schools using the Oliver:

Instruction Books on the famous
Van Sant System of Touch Typewriting

Also Wall Instruction Charts

Efficiency Awards to pupils for speed and
accuracy in Typewriting

FREE TRIAL

Every school should teach typewriting in this day — and every school can make a success of these classes if the Oliver is used. To let you prove the merits of the Oliver before buying, we will, at the request of any proper school official, ship an Oliver for five days free trial. No money down. No deposit. No obligation to buy.

MAIL THE COUPON FOR A FREE TRIAL
OLIVER OR FOR FURTHER INFORMATION

The Oliver Typewriter Co.

SCHOOL DEPARTMENT

128 Oliver Typewriter Bldg., CHICAGO, ILL.

THE OLIVER TYPEWRITER CO.

128 Oliver Typewriter Bldg., Chicago.

☐ Ship a new Oliver, for free examination and trial, to the officer of the school board named below. It is understood that this places us under no obligation to buy. If we do not care to keep it we will ship it back at your expense, when requested by you.

Shipping Point is.....

☐ Do not send a machine until we order it. Mail us your book, "The High Cost of Typewriters—The Reason and the Remedy," together with your catalog and further information.

Name

Position on School Board.....

Name of School Board.....

City..... State.....



NELSON PLUMBING FIXTURES

Sanitary—Durable—Economical

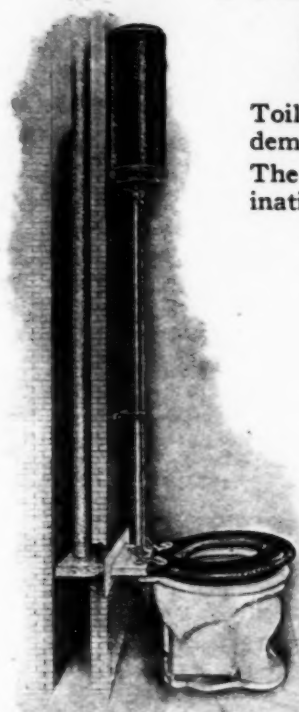
Toilet room fixtures must be right and you, Mr. Schoolman, have the power to demand that the right kind of fixtures be installed.

The health of the children must be protected by avoiding germs, and thereby eliminating the many diseases which exist among school children.

Nonco Plumbing Fixtures

are everything good plumbing fixtures should be—correct both in design and workmanship. They are especially adapted for school use because of their strength and durability. They are guaranteed to withstand the hard usage usually received from school children.

Write us today. Our experts are at your service. We know what is required and are prepared to give your school the very best.



954-N



596-N

N. O. NELSON MFG. CO. EDWARDSVILLE, ILLINOIS
SAINT LOUIS, MISSOURI

BRANCHES and
SELLING AGENCIES:

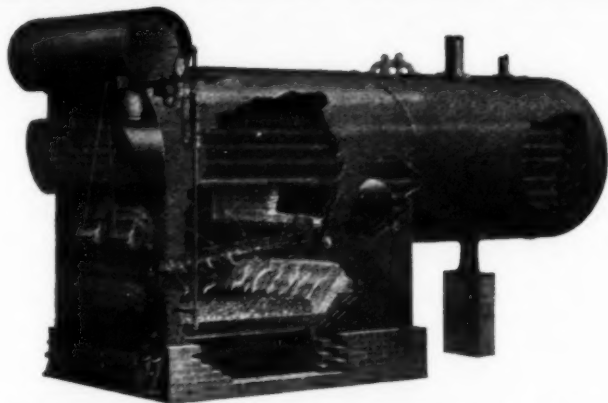
LOS ANGELES, CALIF.
MEMPHIS, TENN.
DAVENPORT, IA.

PUEBLO, COLO.
HOUSTON, TEXAS
LITTLE ROCK, ARK.

SALT LAKE CITY, UTAH
BIRMINGHAM, ALABAMA



KEWANEE School Heating Boilers



KEWANEE SMOKELESS FIREBOX BOILER—Portable Type.

KEWANEE Smokeless Firebox Boilers
burn soft coal without smoke.

*A smoking chimney is proof positive that
at least 20% of your coal is being wasted.*

Thousands of **KEWANEE** Boilers installed in
schools throughout the United States and Canada
are saving coal and giving satisfaction in every way.

Are you going to build a school this year?

Then write for **KEWANEE** "On the Job"—it tells why.

KEWANEE BOILER COMPANY

Kewanee, Illinois



BRANCH OFFICES:

CHICAGO
NEW YORK
ST. LOUIS

KANSAS CITY
LOS ANGELES
MILWAUKEE

MINNEAPOLIS
SALT LAKE CITY
PITTSBURGH

DETROIT
DALLAS
WASHINGTON

TOLEDO

CLEVELAND



De Witt Clinton School No. 9, Mt. Vernon, N. Y.
Werner & Windolph, Architects.

The Winter Months

are the true test of your heating and ventilating plant.

If your school rooms are not heated to the right temperature, even in the coldest weather, and at the same time supplied with the proper quantity of pure fresh air, thoroly diffused thruout each room without drafts, then you have not a system in accordance with the requirements of modern laws and enlightened opinion.

The Peerless Unit System insures a compliance with these fundamental requisites, and the cost of operation is surprisingly small. At the same time by eliminating all factors of waste, it conserves fuel, which is still one of the important tasks of all our people.

Peerless Unit Ventilation Co., Inc.

521-523 West 23rd Street

NEW YORK

MOULTHROP DESKS

“THE FIRST,—AND THE BEST MOVABLE”

(400,000 SOLD—AND IN SERVICE)

LANGSLOW FOWLER COMPANY
ROCHESTER, N. Y.

Thompson Chair-Desks

A Movable and Adjustable Duplex Seating Equipment FOR ALL SCHOOLS



U. S. Patent Serial 1,293,246

EVERYTHING that goes into the construction of Thompson Chair-Desks is designed either (1) to make these chairs last more years without wearing out, or (2) to give the user more extended service and comfort during EVERY ONE OF THOSE YEARS.

Write for Illustrated Circular, List of Installations and Current Prices.

Spokane, Wash. John W. Graham & Co. 707 Sprague Ave.	Chicago, Ill. Union School Furnishing Co. 1034 W. Van Buren St.	New York City Adamson Furniture Co. 141 W. 42nd St.
Omaha, Neb. Omaha School Supply Co. 613 So. 13th St.	St. Louis, Mo. Standard School Supply Co. 204 Walnut St.	Jackson, Miss. Mississippi School Supply Company
Minneapolis, Minn. J. G. Carlson 220 Temple Court	Cleveland, Ohio Theo. Kundtz Co. Winslow & Elm Streets	Columbus, Ohio Theo. Kundtz Co. 610 Joyce Realty Bldg.
Cincinnati, Ohio. Theo. Kundtz Co. 305 Bell Block	Pittsburgh, Pa. Theo. Kundtz Co. 420 Fulton Bldg.	San Francisco, Calif. Rucker-Fuller Desk Co. 677 Mission St.

The Quaint Art Furniture Co., Inc.
MANUFACTURERS

201 West Water Street

Syracuse, N. Y.

Heywood-Wakefield

TRADE MARK

Single Pedestal Desk

Built for those who desire the best in School Furniture
Nine Novel and Exclusive Features

1. Wedge adjustment which cannot loosen or work down.
2. Square section solid steel desk and chair supports. Desk and chair cannot twist from their front facing position.
3. Desk standard fitted to base by a standard taper and pinned. Cannot twist or loosen.
4. Individual support for desk and chair. Prevents seated pupil jarring desk.
5. Base carried forward under chair, giving ample foot room.
6. New process perfect level base, making dust proof joint with floor.
7. New process perfect level desk bracket.
8. Independent and non-interfering desk and chair adjustment.
9. Weight of pupil directly over the center of the supporting base, giving no leverage to loosen the base from the floor.



Patented Oct. 22, 1918

Write for our Single Pedestal Booklet and General School Furniture Catalog

HEYWOOD BROTHERS and WAKEFIELD COMPANY

Pioneer Manufacturers of Pressed Steel School Furniture

Indestructible Pressed Steel Combination Desks, Stationary and Adjustable Desk and Chair Sets, Commercial Desks, Teachers' Desks and Chairs, Tablet Arm Chairs, Assembly Hall and Opera Chairs, Library Chairs, Cocoa Matting, Reed and Rattan Furniture for the Rest Room

516-520 W. 34th St.,
New York, N. Y.
113-123 West Conway St.,
Baltimore, Md.
737-743 Howard St.,
San Francisco, Calif.

174 Portland St.,
Boston, Mass.
Wells and Carroll Sts.,
Buffalo, N. Y.
148-154 Tenth St.,
Portland, Ore.

244-254 S. 5th St.,
Philadelphia, Pa.
2653 Arlington St.,
Chicago, Ill.
211-217 East 6th St.,
Los Angeles, Calif.

THE NEW PEABODY MOVABLE CHAIR DESK



Patent applied for

The top support is made of solid pressed steel. Has three adjustments, all non-binding and noiseless in operation.



Assembly Hall Chairs



Stationary School Desk

For prompt service and satisfaction, we solicit your inquiries on

**School Desks,
Opera and
Folding Chairs**

Prompt shipment and complete satisfaction guaranteed with every purchase

The Peabody School Furniture Co.
North Manchester, Ind.

New Eclipse

Sanitary Adjustable Desk

The desk that best fits your needs. It permits of correct seating for every child. The adjustment on the Eclipse is made on the only true principle, that of forward and backward adjustment. When you lower the desk and seat for a smaller pupil, he is the proper distance from the desk in front of him and does not have to lean forward to reach it. This is due to the patented slanting incline adjustment which always keeps the desk and seat the correct distance apart as well as the proper height for the pupil.



Eclipse desks are characterized by the most simple adjustment on the market. It is made from one side only and can be made while pupil is seated, which absolutely insures proper height.

Children in YOUR school are entitled to proper seating. If you do not use all adjustables, at least provide 20 per cent of these desks to each room. These desks are specifically designed to match our Eclipse Single Stationary Desk, where only part of the seating of the adjustable type is desired.

Eclipse desks last a lifetime. The standards are indestructible and finished with baked japan. All woodwork is of highest grade Michigan Hard Maple, finished with scratch-proof Kauri Gum Varnish.

Write for catalog "S" showing the most complete line of furniture for School and Auditorium.

The Theodor Kundtz Company, Cleveland, Ohio

Sales Offices in All Principal Cities.

American Tubular and Pressed Steel School Furniture

American Tubular and Pressed Steel School Furniture thru years of actual service has demonstrated its Quality and Durability. It will serve your particular needs most effectively and with the greatest economy.



AMERICAN STEEL ADJUSTABLE BOX DESK AND CHAIR

The Original Desk with separate Seat made with Tubular and Pressed Steel Supports electrically welded into a composite unit.



MOULTHROP CHAIR DESK Model B—Type X

A complete and efficient unit for Classroom Seating.

American Quality

Forty years of experience in the manufacture of school furniture, our own plant where every part is made and completely assembled under rigid supervision, and a knowledge of school requirements makes American Tubular and Pressed Steel Furniture the Standard for Quality and Design.

American Service

A highly trained sales organization experienced in meeting the exacting needs of schools is at the service of school officials.

A complete stock of desks is carried at our factory and in distributors' warehouses in all parts of the United States, available for prompt shipment.

Desks for Commercial Purposes.

Pedestal Tablet Arm Chairs

(With or without Book Boxes)

Movable Assembly Chairs

Auditorium Opera Chairs

Portable Folding Chairs

Blackboards Charts Maps

Globes Window Shades General Supplies



AMERICAN TUBULAR STEEL COMBINATION DESK

The only Combination Desk made with Tubular Steel Supports electrically welded into a composite unit. A Desk of Multifold Utility and Economy.



OXFORD '18

"Asco" Metal Supports—the result of forty years' experience, embodying ideas of proven excellence in design and construction.

Order your requirements from *our nearest Office or Distributor*

Atlanta, Ga. Clanton & Webb Co.	Lincoln, Nebr. Nebraska School Supply House	Seattle, Wash. Northwest School Furn. Co.	Eau Claire, Wis. Eau Claire Book & Sta. Co.
Baltimore, Md. Dulany-Vernay Co.	Pierre, S. D. Capital Supply Co.	Portland, Ore. Northwest School Furn. Co.	Greenwood, S. C. Geo. W. Hart.
Buffalo, N. Y. Randolph McNutt Co.	Fargo, N. D. Northern School Supply Co.	San Francisco, Calif. C. F. Weber & Co.	Knoxville, Tenn. Southern School Supply Co.
Richmond, Va. Virginia School Supply Co.	Oklahoma City, Okla. Jasper Sipes Co.	Los Angeles, Calif. C. F. Weber & Co.	Rutland, Vt. Vermont School Seat Co.
Birmingham, Ala. Educational Exchange Co.	Denver, Colo. Centennial School Supply Co.	Phoenix, Ariz. C. F. Weber & Co.	Houston, Tex. C. H. Myers & Co.
New Orleans, La. F. F. Hansell & Bro., Ltd.	Salt Lake City, Utah. McMillen Paper & School Supply Company.	Sioux City, Iowa. Capital Supply Co.	Anamosa, Iowa. Metropolitan Supply Co.
Ft. Worth, Tex. American Seating Co. of Texas	Spokane, Wash. Northwest School Furn. Co.	Louisville, Ky. Central School Supply Co.	Philadelphia, Pa. N. Snellenburg & Co.

AMERICAN SEATING COMPANY

General Offices: 1030 Lytton Bldg., 14 E. Jackson Blvd.
CHICAGO

NEW YORK: 119 W. 40th St. BOSTON: 70 Franklin St.
Sales Offices in All Principal Cities

Thompson Chair-Desks

A Movable and Adjustable Duplex Seating Equipment FOR ALL SCHOOLS



U. S. Patent Serial 1,293,246

EVERYTHING that goes into the construction of Thompson Chair-Desks is designed either (1) to make these chairs last more years without wearing out, or (2) to give the user more extended service and comfort during EVERY ONE OF THOSE YEARS.

Write for Illustrated Circular, List of Installations and Current Prices.

Spokane, Wash. John W. Graham & Co. 707 Sprague Ave.	Chicago, Ill. Union School Furnishing Co. 1034 W. Van Buren St.	New York City Adamson Furniture Co. 141 W. 42nd St.
Omaha, Neb. Omaha School Supply Co. 613 So. 13th St.	St. Louis, Mo. Standard School Supply Co. 204 Walnut St.	Jackson, Miss. Mississippi School Supply Company
Minneapolis, Minn. J. G. Carlson 220 Temple Court	Cleveland, Ohio Theo. Kundtz Co. Winslow & Elm Streets	Columbus, Ohio Theo. Kundtz Co. 610 Joyce Realty Bldg.
Cincinnati, Ohio Theo. Kundtz Co. 305 Bell Block	Pittsburgh, Pa. Theo. Kundtz Co. 420 Fulton Bldg.	San Francisco, Calif. Rucker-Fuller Desk Co. 677 Mission St.

The Quaint Art Furniture Co., Inc.
MANUFACTURERS

201 West Water Street

Syracuse, N. Y.

Heywood-Wakefield

TRADE MARK

Single Pedestal Desk

Built for those who desire the best in School Furniture
Nine Novel and Exclusive Features

1. Wedge adjustment which cannot loosen or work down.
2. Square section solid steel desk and chair supports. Desk and chair cannot twist from their front facing position.
3. Desk standard fitted to base by a standard taper and pinned. Cannot twist or loosen.
4. Individual support for desk and chair. Prevents seated pupil jarring desk.
5. Base carried forward under chair, giving ample foot room.
6. New process perfect level base, making dust proof joint with floor.
7. New process perfect level desk bracket.
8. Independent and non-interfering desk and chair adjustment.
9. Weight of pupil directly over the center of the supporting base, giving no leverage to loosen the base from the floor.



Patented Oct. 22, 1918

Write for our Single Pedestal Booklet and General School Furniture Catalog

HEYWOOD BROTHERS and WAKEFIELD COMPANY

Pioneer Manufacturers of Pressed Steel School Furniture

Indestructible Pressed Steel Combination Desks, Stationary and Adjustable Desk and Chair Sets, Commercial Desks, Teachers' Desks and Chairs, Tablet Arm Chairs, Assembly Hall and Opera Chairs, Library Chairs, Cocoa Matting, Reed and Rattan Furniture for the Rest Room

516-520 W. 34th St.,
New York, N. Y.
113-123 West Conway St.,
Baltimore, Md.
737-743 Howard St.,
San Francisco, Calif.

174 Portland St.,
Boston, Mass.
Wells and Carroll Sts.,
Buffalo, N. Y.
148-154 Tenth St.,
Portland, Ore.

244-254 S. 5th St.,
Philadelphia, Pa.
2653 Arlington St.,
Chicago, Ill.
211-217 East 6th St.,
Los Angeles, Calif.

THE NEW PEABODY MOVABLE CHAIR DESK



Patent applied for

The top support is made of solid pressed steel. Has three adjustments, all non-binding and noiseless in operation.



Assembly Hall Chairs



Stationary School Desk

For prompt service and satisfaction, we solicit your inquiries on

**School Desks,
Opera and
Folding Chairs**

Prompt shipment and complete satisfaction guaranteed with every purchase

The Peabody School Furniture Co.
North Manchester, Ind.

New Eclipse

Sanitary Adjustable Desk

The desk that best fits your needs. It permits of correct seating for every child. The adjustment on the Eclipse is made on the only true principle, that of forward and backward adjustment.

When you lower the desk and seat for a smaller pupil, he is the proper distance from the desk in front of him and does not have to lean forward to reach it. This is due to the patented slanting incline adjustment which always keeps the desk and seat the correct distance apart as well as the proper height for the pupil.

Eclipse desks are characterized by the most simple adjustment on the market. It is made from one side only and can be made while pupil is seated, which absolutely insures proper height.

Children in YOUR school are entitled to proper seating. If you do not use all adjustables, at least provide 20 per cent of these desks to each room. These desks are specifically designed to match our Eclipse Single Stationary Desk, where only part of the seating of the adjustable type is desired.

Eclipse desks last a lifetime. The standards are indestructible and finished with baked japan. All woodwork is of highest grade Michigan Hard Maple, finished with scratch-proof Kauri Gum Varnish.

Write for catalog "S" showing the most complete line of furniture for School and Auditorium.

The Theodor Kundtz Company, Cleveland, Ohio

Sales Offices in All Principal Cities.



American Tubular and Pressed Steel School Furniture

American Tubular and Pressed Steel School Furniture thru years of actual service has demonstrated its Quality and Durability. It will serve your particular needs most effectively and with the greatest economy.



**AMERICAN STEEL ADJUSTABLE
BOX DESK AND CHAIR**

The Original Desk with separate Seat made with Tubular and Pressed Steel Supports electrically welded into a composite unit.

American Quality

Forty years of experience in the manufacture of school furniture, our own plant where every part is made and completely assembled under rigid supervision, and a knowledge of school requirements makes American Tubular and Pressed Steel Furniture the Standard for Quality and Design.

American Service

A highly trained sales organization experienced in meeting the exacting needs of schools is at the service of school officials.

A complete stock of desks is carried at our factory and in distributors' warehouses in all parts of the United States, available for prompt shipment.

Desks for Commercial Purposes.

Pedestal Tablet Arm Chairs

(With or without Book Boxes)

Movable Assembly Chairs

Auditorium Opera Chairs

Portable Folding Chairs

Blackboards Charts Maps

Globes Window Shades General Supplies



**MOULTHROP CHAIR DESK
Model B—Type X**

A complete and efficient unit for Classroom Seating.



**AMERICAN TUBULAR STEEL COM-
BINATION DESK**

The only Combination Desk made with Tubular Steel Supports electrically welded into a composite unit. A Desk of Multifold Utility and Economy.



OXFORD '18

"Asco" Metal Supports—the result of forty years' experience, embodying ideas of proven excellence in design and construction.

Order your requirements from *our nearest Office or Distributor*

Atlanta, Ga. Clanton & Webb Co.	Lincoln, Nebr. Nebraska School Supply House	Seattle, Wash. Northwest School Furn. Co.	Eau Claire, Wis. Eau Claire Book & Sta. Co.
Baltimore, Md. Dulany-Vernay Co.	Pierre, S. D. Capital Supply Co.	Portland, Ore. Northwest School Furn. Co.	Greenwood, S. C. Geo. W. Hart.
Buffalo, N. Y. Randolph McNutt Co.	Fargo, N. D. Northern School Supply Co.	San Francisco, Calif. C. F. Weber & Co.	Knoxville, Tenn. Southern School Supply Co.
Richmond, Va. Virginia School Supply Co.	Oklahoma City, Okla. Jasper Sipes Co.	Los Angeles, Calif. C. F. Weber & Co.	Rutland, Vt. Vermont School Seat Co.
Birmingham, Ala. Educational Exchange Co.	Denver, Colo. Centennial School Supply Co.	Phoenix, Ariz. C. F. Weber & Co.	Houston, Tex. C. H. Myers & Co.
New Orleans, La. F. F. Hansell & Bro., Ltd.	Salt Lake City, Utah. McMillen Paper & School Supply Company.	Sioux City, Iowa. Capital Supply Co.	Anamosa, Iowa. Metropolitan Supply Co.
Ft. Worth, Tex. American Seating Co. of Texas	Spokane, Wash. Northwest School Furn. Co.	Louisville, Ky. Central School Supply Co.	Philadelphia, Pa. N. Snellenburg & Co.

AMERICAN SEATING COMPANY

General Offices: 1030 Lytton Bldg., 14 E. Jackson Blvd.
CHICAGO

NEW YORK: 119 W. 40th St. BOSTON: 70 Franklin St.
Sales Offices in All Principal Cities

With the Canadian Red Cross—

Realizing the doubly vital necessity of preventing unnecessary loss of life in war-time, the Canadian Red Cross adopted the best known means of protecting the men in hospitals from fire-panic. Every Canadian Red Cross Hospital was equipped with

Von Duprin

Self-Releasing Fire Exit Latches

Everywhere, the world over, Von Duprin Latches are protecting the inmates of schools, hospitals, theaters, hotels, office buildings and factories from loss of life through fire panic.

By the simple expedient of making exit easy and sure in time of panic, these devices eliminate the cause of the great loss of life in fire disasters of the past.

They are sturdy in construction; never-failing in operation; and are made in models to fit doors of all types. Let us send you catalog 12C, which gives complete details.

VONNEGUT HARDWARE CO.
Indianapolis, Ind.



The King's Canadian Red Cross Convalescent Hospital, Bushy Park, London, England.



No. 1549
Domestic Science Table

FED L QUIP

THE QUALITY MARK ON

Furniture for Physics and Chemistry Laboratories, Domestic Science, Biology, Manual Training, Etc.

OUR FACTORY IS WELL EQUIPPED TO MANUFACTURE SPECIAL FURNITURE FROM ARCHITECT'S DRAWINGS

FEDERAL EQUIPMENT CO.

322-342 West Street

CARLISLE, PA.

NORTH-WEST
DISTRIBUTORS

LANGLEY & EWART,
412-414 Essex Building,
MINNEAPOLIS, MINN.

Christiansen Benches and Tables are built right

Many schools are now using our Benches and Tables. Are you?

¶ We are prepared to fill your order and ship immediately.

¶ Open up your Christiansen catalog 24 and note some of the good things offered there in School Supplies.

¶ Make your selections and mail your order now.

C. Christiansen

Manufacturer

Manual Training Benches
Domestic Science Tables
Drawing Tables and
Accessories

2219 Grand Avenue Chicago



Send us your list of Tools needed. We can give you the very lowest price on short notice.



The Desk Supreme

A Happy Combination of Beauty, Durability and Economy. Steel construction eliminates breakage and excessive carrying charges for long distance shipments.

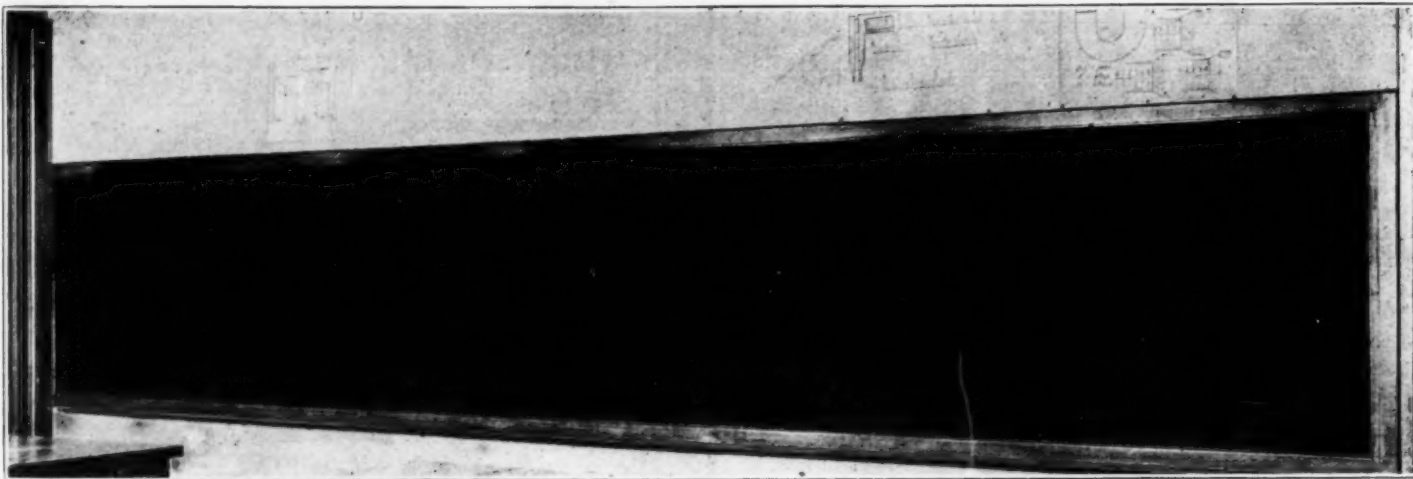


THE STANDARD STEEL DESK

Standards of steel, japanned an olive green color. Woods of genuine cherry or cherry top, imitation back and seat.

NEW JERSEY SCHOOL FURNITURE CO.

TRENTON, N. J.



Natural Slate Blackboard in the Central High School, Philadelphia. Photographed in 1918, after 55 years of efficient service.

Smooth as Velvet Not a Penny for Repairs In Everyday Use Since 1863

Think of the thousands of scholars who have stood before this blackboard installed in the old Central High School of Philadelphia over a half century ago.

Think of the millions of chalkmarks that have been made, erased and made again and again on these fine old slabs of Pennsylvania Natural Slate.

Think of the smooth, clean surface that this blackboard has today after its many years of continuous use.

It would be difficult to produce a more decisive argument in favor of Natural Slate as the most satisfactory blackboard material obtainable.

Leading school architects specify Natural Slate Blackboards. Foresighted School Boards insist upon their use.

Natural Slate Blackboards do not shrink, crack, warp or bulge.
They have no veneered surface or coating to chip, dent or peel.
They are sanitary, easily cleaned.

But best of all, they are permanent, satisfactory investments that outlast the building itself.



Entrance, Central High School, Philadelphia. The Natural Slate Blackboard above shown, was installed ten years after erection of Building, to supplant the first boards which were of painted pine.

PYRAMID BRAND NATURAL SLATE BLACKBOARDS

are made from the choicest natural slate quarried in the famous Pennsylvania District.

Velvety-smooth, exact in size, with every operation of production carefully standardized, Pyramid Brand Natural Slate Blackboards are stocked in large quantities of various dimensions ready for immediate shipment.

Write for "Natural Slate Blackboards—

Their Standardization and Correct Installation" by D. Knickerbacker
Boyd, F. A. I. A. Architectural Advisor and Structural Standardist.

NATURAL SLATE BLACKBOARD CO.

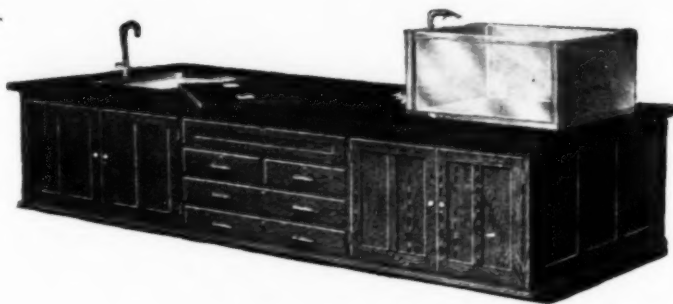
PEN ARGYL

PENNSYLVANIA



**Kewaunee Physics
Laboratory Table**

This table has been standardized by reason of its popularity with Physics Teachers and consequent large sales. It is very substantially built. It has ample drawer space, electrical connections, and metal in place of wooden uprights and crossbar. This table can be supplied without the large drawers or with lower cupboards and drawers, in place of the four large drawers, if desired.



**Kewaunee Biology
Instructor's Desk**

This desk is peculiarly fitted for service in the biology laboratory. The storage space is so arranged as to be of the greatest possible usefulness to the instructor. The large cupboards and drawers afford a great deal of convenient store room, and the deep sink, with its 11-inch standing overflow plug, performs the double function of a sink and tub. An aquarium is a part of each of these desks, and is a very necessary adjunct to this laboratory in the maintenance of healthy specimens. The compartment over the drawers, with the drop-down door, will be found very convenient for dissecting boards, reagent bottles, small graduates, etc. The aquarium has soapstone ends and bottom, and plate glass sides. All plumbing for water, waste and gas is supplied to the floor line.

As most School Executives know, Kewaunee is the leading line in America, of Laboratory Furniture for Schools.

Ask for a copy of our free book.

Kewaunee Mfg. Co.
LABORATORY FURNITURE EXPERTS
KEWAUNEE, WIS.

New York Office, 70 Fifth Avenue
Chicago Office, 20 E. Jackson Blvd.

BRANCH OFFICES:

Columbus Atlanta Dallas New Orleans El Paso
Little Rock Kansas City Los Angeles Minneapolis
San Francisco Denver

LEONARD PETERSON & CO., Inc.

PIONEER DESIGNERS AND MANUFACTURERS OF

High Grade Laboratory Furniture

For Chemistry, Physics, Biology, Physiography,
Domestic Science, Domestic Art, and Manual Training



Superior quality, strength, solidity, and durability are built right into our furniture. Every detail is well worked out. Our furniture has met with the approval of hundreds of educators thruout the United States, Canada, Porto Rico, and China.

Send for a copy of our Catalog No. 10

Leonard Peterson & Co., Inc.

Manufacturers of Guaranteed Laboratory Furniture

1234-1248 Fullerton Avenue, Chicago, Ill.

Branch Offices:

NEW YORK CITY
70 Fifth Avenue

MINNEAPOLIS, MINN.
220 Temple Court Bldg.

GRAND RAPIDS, MICH.
Murray Building



DOMESTIC SCIENCE TABLE No. 11

THE ESTABLISHED STANDARD FOR CON-
VENIENCE, STRENGTH AND CLEANLINESS

SHELDON makes, stores and promptly ships more No. 11 Domestic Science Tables every year than all other makes and styles combined. Its supremacy has been established by thousands of practical demonstrations.

E. H. SHELDON & COMPANY

General Office and Factory, Muskegon, Mich.

Eastern Office, 70 Fifth Ave., New York City

Send for Catalogue for Domestic Science Chemistry Biology Sewing
Industrial Training Agriculture Physics Drawing



Its Lasting Qualities are Guaranteed

Under the constant wear of school use Beaver Blackboard shows its wonderful lasting power. Thousands of chalk marks and thousands of erasures, day after day, and year after year have proved this "make good" ability.

But there is no risk for you. *Beaver Blackboard* is guaranteed. You are given every assurance of economy and durability by a corporation of international reputation. The famous beaver trademark is on the back of every slab of Beaver Greenboard and Beaver Blackboard. This mark is your protection.

Beaver Blackboard and Beaver Greenboard come in slabs two or three times the size of the largest pieces of slate and in **SLABS THAT NEVER WILL CRACK.**

Our booklet "Why You Should Interest Yourself in Blackboards" will give you further interesting data.

THE BEAVER BOARD COMPANIES
170 Beaver Road Buffalo, N. Y.

Branches at Boston, New York, Baltimore, Cleveland, Detroit, Chicago, Minneapolis, Kansas City, San Francisco, Ottawa, Can., and London, Eng.
Manufacturers also of Beaver Board.

Distributors in principal cities, dealers everywhere.



Your protection is the Beaver trademark on the back of every slab.



Your protection is the Beaver trademark on the back of every slab.

BEAVER GREEN BLACK BOARD



Permanent + Serviceable + Economical

Install PERMAROC and you solve the Blackboard Question for all time. It costs much less than other permanent blackboards—it can be installed for one-fourth as much—and can be shipped at one-third the expense. For writing and erasing qualities it has no equal. If interested in better blackboards investigate the merits of PERMAROC.



Illustration Shows Cross Section

Write for Samples and Further Information

Rowles' Invincible Semi-Steel Desk



We offer the Rowles' Invincible Semi-Steel Desk with the firm conviction that it is the best semi-steel desk manufactured today, regardless of price. Absolutely nothing has ever been offered which equals it in beauty, construction and durability. It is perfectly sanitary in design, handsome in appearance, comfortable, durable, noiseless and guaranteed for twenty-five years.

Write for Latest Prices

E.W.A. ROWLES CO.

MANUFACTURERS — PUBLISHERS
SCHOOL FURNITURE AND SUPPLIES
2345-51 SO. LA SALLE ST.
CHICAGO, ILL.

DAN-DEE



**Metal
Waste
Baskets**

THE test of time has raised DAN-DEE Waste Baskets to a pinnacle of achievement unapproached by others. Their value lies not alone in their ability to properly care for the waste consigned to them, but added thereto a durability and neatness distinctively their own.

DAN-DEE Waste Baskets are deserving a place in every school room everywhere. Fireproof and sanitary in construction, and a choice of styles and finishes to harmonize with any surroundings.

Sold by school supply houses, stationery, hardware and department stores. Descriptive circulars upon request; prices if unable to secure from your dealer.

Erie Art Metal Co.
Erie, Pa.

LYON

STEEL LOCKERS

Lyon Lockers are safe lockers. They are made of steel welded and heavily reinforced. There is only one way in—unlock the door.

They give

Complete Locker

Protection



Our Bulletin 201 shows why they are strong.

Ask our nearest office.

LYON METALLIC MFG. CO.

AURORA, ILLINOIS.

Steel Shelving, Lockers, and General Equipment.

Chicago
Detroit
Rochester
Boston

Cincinnati
Pittsburgh
Philadelphia
New York.

Successful Laboratory Work

In the teaching of the sciences and especially for the laboratory work the success obtained depends greatly on the apparatus used. In no other branch of Education is the use of correct materials and supplies so essential.

"Welch" Scientific Apparatus

is rapidly becoming the accepted standard for schools and embraces all the equipment and supplies required for successful laboratory work and the effective teaching of the sciences. "WELCH" Scientific Apparatus is especially designed for school purposes and is used in the leading Educational Institutions, which is evidence of its utility.

ASK FOR CATALOGS AND ORDER YOUR REQUIREMENTS NOW

"A" Apparatus, Soils, Fertilizers, Crop Materials, Field Instruments, Project Records for AGRICULTURE, especially for Smith-Hughes Schools.

"B" Incubators, Sterilizers, Microscopes, Prepared Slides, Preserved Materials, Anatomical Models and Biological Glassware, etc.

"C" A complete list of Chemicals, Dry Stains, Rocks and Minerals.

"G" Apparatus and Laboratory Equipment for Physics, Chemistry and Physical Geography and other Laboratory Supplies.

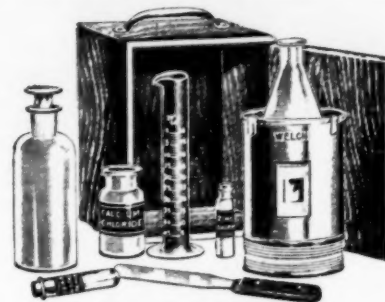


WRITE FOR NEW SPECIAL CATALOG ON WIRELESS JUST OFF THE PRESS

W. M. WELCH SCIENTIFIC COMPANY

Manufacturers, Importers and Exporters of Scientific Apparatus

1516 ORLEANS ST., CHICAGO, U. S. A.



SOIL ACIDITY TESTER



SENSITIVE LECTURE TABLE GALVANOMETER
NO SUSPENSIONS TO BREAK

CONTINENTAL

SPECIAL SCALE FOR SCHOOLS

The Power Behind the Pupil

FUTURE-RULERS of our Country are the School Children of today.

25,000,000 Boys and Girls of school age 6 to 18 years.

50% of them have defects and ailments, majority of which are remediable.

30% of them are underweight.

SCHOOL AGE IS THE TIME FOR THE REMEDY.

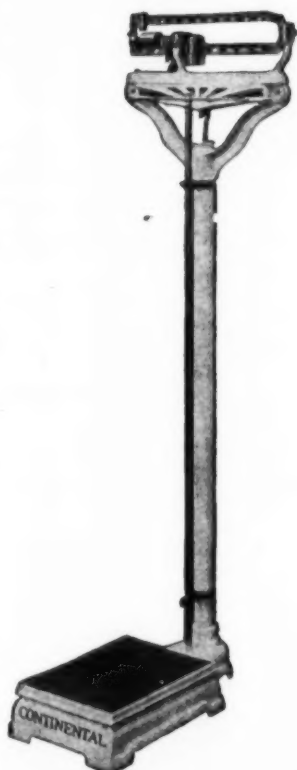
A "CONTINENTAL" will indicate the progress.

Artistic in design.

Perfect construction in every detail.

The School is not complete without one.

Send for complete information.



CONTINENTAL SCALE WORKS

3905-11 Langley Avenue, Chicago, Ill.

BESIDES HOLDING SCRAPS

A schoolroom basket is called upon to perform many duties besides merely holding waste.

If it is a VUL-COT, all this hard, unusual wear will have little effect; they'll long outlive their guaranteed five years.

Then, VUL-COTS keep the schoolroom clean—the solid sides and bottom prevent scrap from sifting through. They'll not sag or dent, nor will they split, crack or corrode.

VUL-COT WASTE BASKETS
Guaranteed 5 years

In every respect you'll find VUL-COTS an unusually good buy.

Write for illustrated folder and sample of material. Please mention name of dealer or supply house.

AMERICAN VULCANIZED FIBRE CO.
520 Equitable Bldg.
Wilmington Delaware
CANADIAN DISTRIBUTORS:
A. R. MacDOUGAL CO., Ltd.
266 King St. Toronto, Canada



SCHOOL-ARCHITECTS'-DIRECTORY

CLYDE S. ADAMS, Architect and Engineer

Twenty-five years of the Study of Meeting School
Requirements in a Practical Way

1509 Arch Street, Philadelphia, Pennsylvania

Specialists in School Houses

Twenty Years of Experience

LEONARD ASHEIM, Architect

305-306 Court Exchange, 211 State Street

Bridgeport, Connecticut

THE W. W. BEACH COMPANY

ARCHITECTS AND ENGINEERS

SIOUX CITY, IOWA

We have been building Schools and Colleges
in the United States since 1899

WILLIAM J. BEARDSLEY

ARCHITECT

POUGHKEEPSIE NEW YORK

J. C. BERRY & COMPANY

Architects

Amarillo, Texas

Investigate Our Services in Planning Your New Building

FRANK IRVING COOPER

Specializing in School Planning
Consulting Service to School Boards

33 Cornhill, Boston, Massachusetts

CHAS. A. DIEMAN & COMPANY

Architects and Engineers—Plumbing and Heating
405-408 Granby Building, CEDAR RAPIDS, IOWA

60 Schools to Our Credit in Past Few Years

THE ELMER E. DUNLAP COMPANY

ARCHITECTS

Specialists in School Planning, Design and Construction
Consulting Service to School Officials—73 Schools in past 10 years
State Life Bldg., Indianapolis, Ind.

J. H. FELT & COMPANY

Architects—Engineers

Specialists in School Planning

Kansas City, Mo. Mason City, Iowa

LEONARD H. FIELD, JR.

ARCHITECT

JACKSON MICHIGAN

School Planning a Specialty

H. A. Foeller, A. I. A.

Max. W. Schober, A. I. A.

FOELLER & SCHOBBER

ARCHITECTS

Green Bay, Wisconsin

J. W. GADDIS

Architect

School Work a Specialty

608-14 American Bank Building, Vincennes, Indiana

WILLIAM GORDON, A. I. A.

Architect

319 Hubbell Building

Des Moines Iowa

GUILBERT & BETELLE

Architects

Newark, New Jersey

WILLIAM E. HARRIS

Architect

2110 North Fifth Street, Kansas City, Kansas

WM. B. ITTNER, F. A. I. A.

Architect and School Specialist

Board of Education Building

Saint Louis Missouri

Karl K. Keffer

Earle E. Jones

KEFFER & JONES, Architects

Hubbell Building DES MOINES, IOWA

Architectural and Structural Design Mechanical Equipment of Buildings
Specializing in Iowa Consolidated Schools High and Grade Schools

ROBERT J. KEICH

School Architect

Warren Ohio

G. L. LOCKHART, Architect

Planning Schools Exclusively

Consultation Service Rendered to School Boards
in Connection with Bond Issues and School Surveys
391 Endicott Bldg., ST. PAUL, MINN.

LOWINSON AND SCHUBERT

Architects and Engineers

School Buildings

366 Fifth Avenue New York

SCHOOL-ARCHITECTS'-DIRECTORY

ROBT. A. MESSMER & BRO.
Architects
Majestic Building Milwaukee, Wis.

G. R. RAGAN, F. A. I. A.
ARCHITECT
Roanoke, Virginia

I Make a Specialty of School Work, having had twelve (12) years experience in designing schools. Nothing too large or small to receive my prompt attention

MOUNTJOY, FRENCH & FREWEN
Architects
Chamber of Commerce Building
Denver Colorado

I. H. & W. M. RAPP & A. C. HENDRICKSON
Colorado Office: Trinidad
New Mexico Office: Santa Fe

OPPENHAMER, SPEER AND OBEL
ARCHITECTS

Our Specialty—Designing and Construction of Public Schools
Chicago, Illinois: Suite 1823 Continental and Commercial Bank Building
Wausau, Wisconsin: New Spencer Building, 605 1/2 Third Street

GEO. O. ROGERS
Architect - Consulting Engineer

Schools, Churches, Theatres, Residences, Business Blocks
Hartje Office Bldg., PITTSBURGH, PA.

Albert S. Owen, A. I. A. Chas. H. Payson, A. I. A. Robin B. Carswell
OWEN & PAYSON
Architects
202 Reliance Bldg., Kansas City, Mo. American Bank Bldg. Fort Madison, Iowa

JOSEPH W. ROYER
Architect
Flat Iron Building, Urbana, Illinois
We Specialize in all Classes of School Buildings

EDGAR A. PAYNE
School House Architect

Special Attention Given to Proper Lighting, Heating and Ventilating of Schools. Correspondence Solicited Anywhere
Carthage, Ill.

N. S. SPENCER & SON, Architects
Specialists in School Planning and Design
1490 Old Colony Building, Chicago, Illinois

PERKINS, FELLOWS & HAMILTON
814 Tower Court, Chicago, Illinois
Members of the American Institute of Architects

C. H. SUDHOELTER COMPANY
ARCHITECTS
Engineers and Designers of Public Schools
Telephone 3734 215 West Ninth St., JOPLIN, MO.

J. H. Pierce, F. A. I. A. H. H. Bickford, F. A. I. A. R. T. Bickford, B. Arch.
PIERCE & BICKFORD
Architects
Specialists in Fire-Proof School Work
118 and 120 Lake Street ELMIRA, N. Y.

H. R. TEMPLE
Architect
Twenty Years Experience in School Work
Champaign, Illinois

FRANK G. PIERSON
Architect—School Designing
Washington Loan and Trust Building
Washington, D. C.

VAN LEYEN, SCHILLING & KEOUGH
Architects and Engineers
1115-1121 Union Trust Building, Detroit, Michigan
Specializing in Educational and Society Buildings
Our Organization Embraces Specialists in Architecture and Structural, Heating, Ventilating, Electrical and Power Engineering

JOHN NOBLE PIERSON & SON
Architects, School House Specialists
Seventy Schools in Ten Years
PERTH AMBOY NEW JERSEY

C. E. WERKING & SON
School Architects and Engineers
Richmond, Indiana
15 Years' Experience in Designing School Buildings and Heating and Ventilating Systems

C. GODFREY POGGI
Architect - Specialist
275 Morris Avenue, Elizabeth, N. J.
References: Schools of Elizabeth, N. J.

GEORGE WINKLER
A. B. B. of Arch., A. I. A.
School Architect
Palace Bldg. Tulsa, Okla.

EVERY SCHOOL SHOULD FLY A BULL DOG BUNTING FLAG

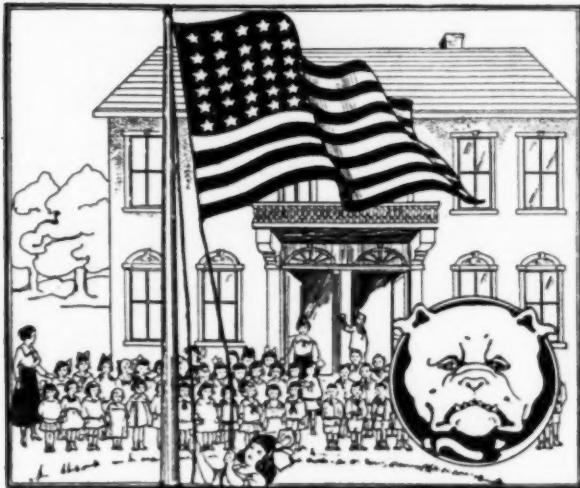
Trade Mark Registered U. S. Pat. Office

FLAG

Specified and used by U. S. Government, the large Municipalities and MAJORITY of Schools thruout the country

BEST BY TEST

FLAGS OF EVERY DESCRIPTION



JOHN C. DETTRA & CO., INC.

Manufacturers

OAKS, MONTGOMERY CO., PA.

For Sale by all First Class Dealers



Home of the Permanent Exhibit

When
in
New York



Visit
this
Exhibit

We are showing the Newest and Best in School Furniture, Supplies, and Equipment of all kinds.

This exhibit is visited yearly by thousands of School Superintendents, Principals, and Teachers.

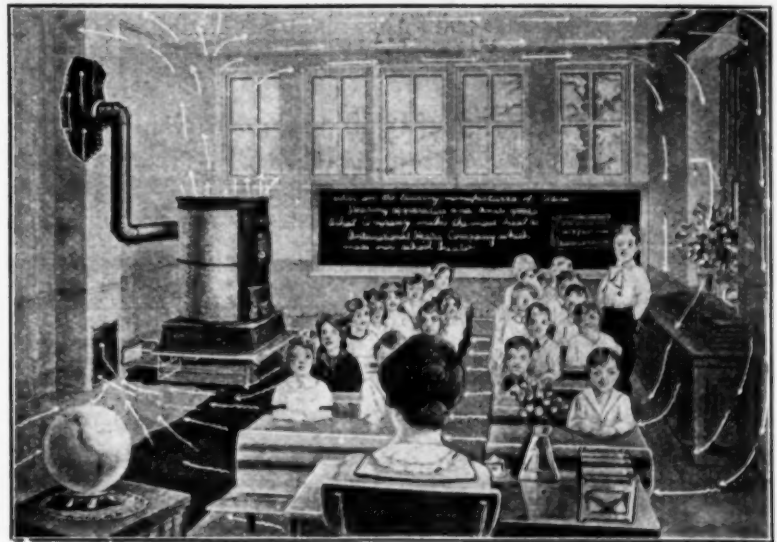
Write us for particulars.

EDUCATIONAL EXHIBIT COMPANY

70 Fifth Avenue

NEW YORK CITY

THE INTERNATIONAL System



A Well Warmed, Well Ventilated School Room Using

THE INTERNATIONAL SCHOOL HEATER

Designed for Warming and Ventilating One Room and Portable School Buildings

Can be easily installed. Furnishes the fresh air required by law. Makes every part of the room comfortable without overheating those who sit nearest the fire.

SEND FOR FULL DESCRIPTION AND PRICES

INTERNATIONAL HEATER CO

UTICA, NEW YORK



PARTICULAR buyers of engraving for School Publications and other purposes, are using our Art and Engraving Service to their complete satisfaction.

Perfect reproduction, quality, workmanship and deliveries as promised.

PREMIER ENGRAVING CO.

PHOTO ENGRAVERS AND DESIGNERS

MILWAUKEE
WISCONSIN



Phone Grand 1231
1105 Villet Street



A Model Wood Shop in the Tilden Technical High School, Chicago
Equipped with Channon Fireproof Work Benches

THE CHANNON FIREPROOF WORK BENCH

THE LAST WORD IN WOOD SHOP EQUIPMENT

This bench was designed by one of the best known and most successful Teachers of Manual Training. It is a development of many years' Experience in actual class work and is the only bench which meets every requirement of the modern school shop.

It is Strong, Solid and Fireproof. It is easily adjusted to height of pupil and has a tool cabinet, opening at the back, in which the tools are always in plain view and convenient to the hand. It is furnished with, or without, the four locker drawers shown, is fitted with rapid action vise and has many other advantageous features which merit careful consideration by every training school management. Full information and prices furnished on request.

CHANNON CATALOG No. 80

Should be in the Office of every School Board and Superintendent. Write for your copy today

H.Channon Company
Chicago

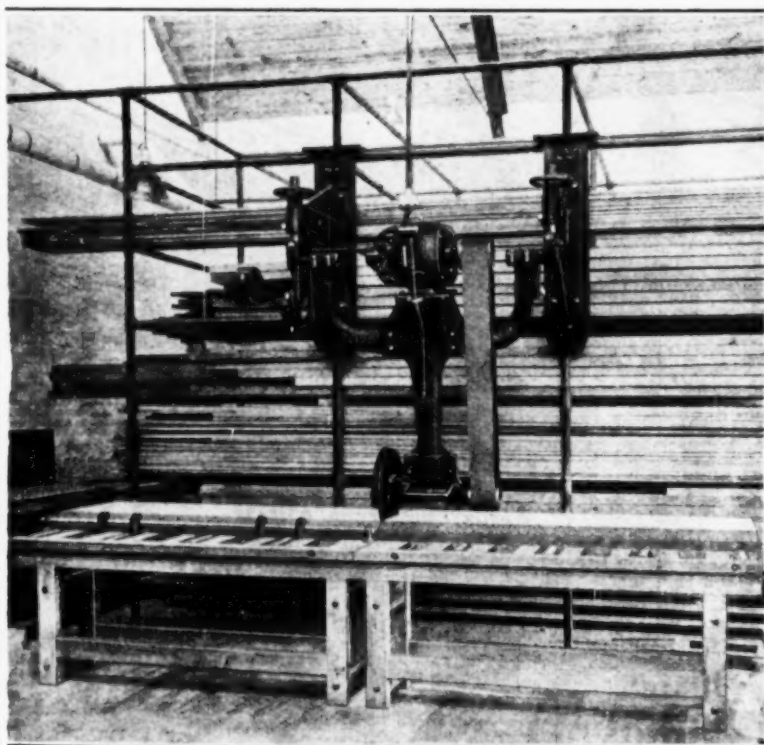
CHANNON

Everything
For the School Shop

HIGH CLASS MACHINERY, TOOLS AND SUPPLIES

of all kinds for the Machine Shop, Steel Shop,
Forge Shop, Foundry

Janitor	Steamfitter	Carpenter
Engineer	Plumber	Painter
Fireman	Electrician	Concrete Worker



"Oliver" Swing Cut-off Saw installed in the South High School,
Grand Rapids, Mich.

The Grand Rapids Schools are pioneers and leaders in many phases of Industrial Education.

In the illustration, note the wall-brackets and saw guard, also the roller table and patent multiple stops. The outfit is conveniently located near the lumber racks.

OLIVER MACHINERY COMPANY
GRAND RAPIDS, MICH., U. S. A.

New York, Chicago, St. Louis, San Francisco, Los Angeles.

LAPIDOLITH

TRADE MARK

Makes Concrete Floors Dustproof and Wearproof

Stop Concrete Dust!

Stop the wearing away of the concrete floors in your school.

This dust ground up by pupils' feet is injurious to human lungs and to the varnish on desks—to anything it touches.

Sharp flint-like silicate—dangerous, and now preventable. Apply Lapidolith at once.

Just flush it on!

Old or new concrete floors become granite-hard when lapidolized and can never dust again.

Lapidolized floors in toilet rooms are non-absorbent, easily washed and can be kept odorless and sanitary.

Cost small—results guaranteed. Write for testimonials from schools and universities, sample flask and Lapidolized concrete slab. Dept. 22.

L. SONNEBORN SONS, Inc.
264 Pearl Street, New York

Also manufacturers of Cemcoat, the washable wall coating for schools



For Rural Schools

Every rural school can now have a fresh running water system at small expense and with certainty of successful operation. The National Fresh-from-the-Well Water System promotes school health by making possible the drinking fountain, the running water lavatory and the indoor toilet. It gives your rural pupils the same chance for health as the city pupil.

All sizes—
All Capacities
Write for Catalog.

United Pump & Power
Company,
(School Installation Dept.)
322 Bellevue Place,
Milwaukee,
Wis.

NATIONAL
Fresh From The Well
Water System

The Problem of Safe and Sanitary Heating and Ventilation of School Wagons is Solved.



THE MILLER VEHICLE HEATER Does the Work

The above cut shows the Miller Vehicle Heater in use on a modern school wagon under actual winter conditions.

No stove to overturn, no gas or oil to explode, no smoke or poisonous gas to endure. Simply a hot air register in the floor flooding the whole inside of the wagon with warm, pure air drawn from outside.

Disease is now sweeping over the country endangering the lives of young and old alike. The epidemic of Spanish Influenza finds an inviting field for its deadly work in crowds, in damp, cold atmosphere, in poor ventilation.

The Miller Vehicle Heater, like mingled sunshine and fresh air, dispels dampness and disease, affords warmth and comfort, and renders safe and sanitary the journey to and from school.

Every parent has a moral right to demand and it is the sacred duty of school officers to supply Miller Vehicle Heaters for school wagons.

We manufacture and sell Heaters only and sell to wagon manufacturers, dealers and school authorities.

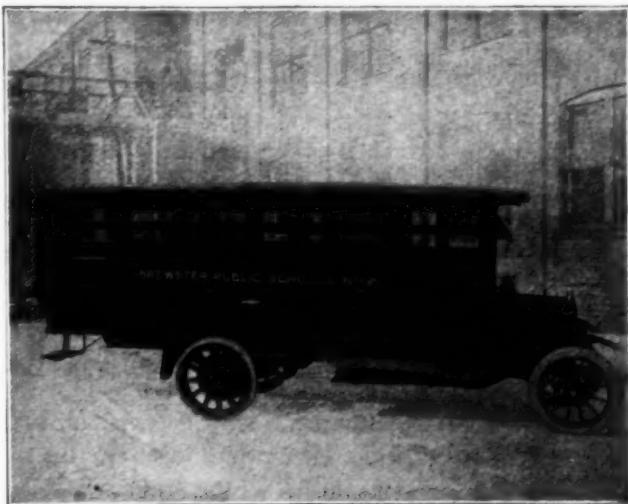
Send for Prices.

MILLER VEHICLE HEATER CO.

Crawfordsville, Ind., U. S. A.

Wayne School Cars

are available for immediate delivery to those school officials who find, after school has opened, that they require additional transportation equipment.



Made by

The Wayne Works

Richmond, Indiana

"Since 1868"

The Pease Chemical Toilet



A Perfectly Ventilated Toilet

Moderate in Price
Neat in Appearance
Economical in Operation
Sanitary and Odorless

Write for Special Literature

P. L. Pease & Company, Inc.

Springville, N. Y.

Also makers of The Buffalo Fresh Air Heater

SCHOOL BUILDINGS Shipped and Erected *Quickly—Economically!*

"Circle A" is the prompt and permanent solution of your school-building problem. The "Circle A" school-buildings are durable, complete and absolutely perfect in every detail of construction. And they are ready right now—in interchangeable units. Your order will be shipped without delay, and the car tracers in our employ will follow the shipment until it reaches its destination. The school can then be erected quickly and economically as per detailed instructions from our Engineering Department or, if you so desire, under the personal supervision of one of our superintendents.

"Circle A" Schools are more durable and cost less than those which are standard built. Yet, although they are permanent, all "Circle A" structures are also portable and have a salvage value of 100%. They serve admirably not only as schools but as community centers and recreation halls in both the rural districts and the city.

Make sure of a good school building before winter comes. The pupils, whose welfare you naturally consider to be of paramount importance, will be amply protected against freezing weather when housed in a "Circle A" school. They will, in fact, be more comfortable throughout the year than they would be if they occupied standard-built structures.

For further information write or wire our nearest office—Chicago, Monroe Bldg.; New York, Postal Telegraph Bldg.; Fort Worth; Detroit, Hall Bldg. If you so desire, a representative from our Engineering Department will call at your office and present the "Circle A" story of quick building in full detail

THE ALEXANDER LUMBER COMPANY

 **"CIRCLE-A"** 

Patents Pending

INTERCHANGEABLE UNIT BUILDINGS

Sani-Flush

The Closet Bowl Cleaner

The Water Closets in Your Building Need Cleaning

Such a condition recurs frequently in every closet.

Sani-Flush easily and effectively dissolves all stains and incrustations common to water-closets. Odor is destroyed by removing the cause.

Furnish **Sani-Flush** to the custodians of your buildings and there will be no excuse for unsightly and offensive closets.



The Hygienic Products Co.

1120 Walnut Street : Canton, Ohio

Not only *check* Epidemics but *avoid* them by equipping your school lavatories with—

THE Onliwon Paper Towel Cabinets



The Cabinet discourages waste by serving the towels singly.

The ONLIWON CABINET is germ-proof and operates by a sanitary principle — the Pupil touches no part of the cabinet in securing his towel. The individual, automatic service safeguards *each pupil*.

ONLIWON TOWELS, which really dry the hands and face, are made from clean wood pulp chemically treated and manufactured under ideal *Health* conditions.

By sending us your address, you may secure figures telling the cost of ONLIWON maintenance in various schools.

A. P. W. PAPER CO.

1285 Broadway, Albany, N. Y.

The Test of Experience

For Teacher

Louisville Boys' High School
G. M. Reed, Principal
S. B. TINSLEY, Asst. Principal
E. P. CHAPIN, Asst. Principal
LOUISVILLE, KY., Sept. 19, 1916.
Sengbusch Self-Closing Inkstand Co., Milwaukee, Wis.

Gentlemen: I am enclosing check for \$1.40, in payment of your bill of Sept. 13. We have about 325 of your inkstands in use and they are very satisfactory.

Very truly yours,
I. R. STOUT,
Head of Commercial Dept.

For Pupil

Watch for Other "Experience" Letters

Samples sent to Teachers or Boards, on request.

BETTER INKWELLS—BETTER INK BETTER WORK

You can't expect your pupils to do good work with ink that has been exposed to air and dust and become gummy and difficult to write with.



Pat. Dec. 12, '05. Pat. Jan. 19, '06.

U. S. INKWELLS

keep the ink air-tight and dust-proof at all times. They are simple in construction, easy to keep clean and cannot get out of order. There are no hinges to break or corks to lose.

Both teachers and pupils are sure to be satisfied with the U. S. Inkwell.



Pat. Nov. 14, '11.

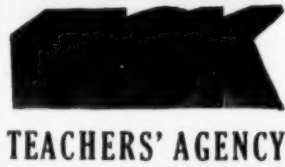
Send for a free sample today.

U. S. INK WELL COMPANY, INC.

Manufacturers

Des Moines, Iowa

Directory of Teachers' Agencies



Come to Us for Teachers

The prestige and high standing of this Agency and its facilities for combing the whole educational field, naturally attract and enlist the most desirable teachers.

TEACHERS' AGENCY

28 E. Jackson Blvd., Chicago
Boston New York Birmingham Denver Portland Los Angeles Berkeley

COLLEGE GRADUATES

RECOMMENDED EXCLUSIVELY — (vocational teachers excepted) No grade school positions. Anything from high school up. Leading bureau for teachers of Commercial, Industrial, and Physical Education. Established 18 years. Covers all states. For a teacher or a position, tell us your needs.

SPECIALISTS' EDUCATIONAL BUREAU

ROBERT A. GRANT, President,
1504 S. Grand Ave., St. Louis, Mo.

Teachers, Principals, Superintendents WE CAN SERVE YOU... WRITE US TODAY

Pacific Office:
PORTLAND, OREGON
Frank K. Welles, Manager
THE EDUCATIONAL CLEAR-
ING HOUSE OF THE WEST

ROCKY MOUNT TEACHERS'
AGENCY, EMPIRE BLD'G, DENVER, COLO.

WM. RUFFER, A. M., Manager

CENTRAL EDUCATIONAL BUREAU

METROPOLITAN BUILDING SAINT LOUIS, MO.
Renders superior service to both schools and teachers. The manager, in a professional capacity, each year visits schools in many states and knows school needs first hand.
Correspondence of school officials and teachers solicited.
W. J. HAWKINS, Manager

AN AGENCY THAT RECOMMENDS In 1913 we announced that thereafter we should have nothing to do with notices of vacancy; that we should inform our candidates of places *only when officially asked to recommend by the school board*, and then only usually a single candidate, never more than two or three. The result was the largest business in our 34 years of experience, and it grows. Suppose you try us.

THE SCHOOL BULLETIN AGENCY, SYRACUSE, N. Y.

NORTHERN TEACHERS' AGENCY, 12 Roberts Street, FARGO, N. D.

The demand for good teachers at good wages in all schools is constant in this northwest. You will like to teach here. Now is the time to enroll. Write us today for blanks and literature.

W. L. STOCKWELL, President State Supt. 1903-11 MRS. MATTIE M. DAVIS, Manager 14 years Co. Supt. Cass Co.

Missouri Valley Teachers' Agency

All communications answered the day received. Services free to school officials. Membership free to teachers. Wire or write for teachers or positions.
O. F. Revercomb, Mgr. NEW YORK LIFE BLDG., KANSAS CITY, MO.

EDUCATORS-AGENCY A. P. GODDARD, Pres. Y. M. C. A. Bldg., 19 S. LaSalle St., Chicago

Personal inspection of instructors in the classroom one of the many distinguishing features of our service. Educators-Bulletin sent free to School Officials on request.

Southern Teachers' Agency
Columbia, S. C.
Chattanooga, Tenn.

W. H. JONES, Mgr.
AN ANNOUNCEMENT
To more thoroughly cover the middle South, and to take care of our rapidly growing business in that splendid territory, we have opened an office in Chattanooga. It will be under the same management as our Columbia office, and will specially cover Tennessee, Kentucky, Alabama, Louisiana, Mississippi, Arkansas and Oklahoma. Columbia, S. C. Two Offices—One Fee Chattanooga, Tenn.

THE TEXAS TEACHERS' BUREAU C. G. Truitt, Manager MARSHALL, - TEXAS

Organized 1888. The Oldest Teachers' Agency in Dixie

FISK TEACHERS' AGENCY BIRMINGHAM OFFICE R. A. CLAYTON, Manager

Boston, New York, Pittsburg, Chicago, Memphis, Birmingham, Denver, Portland, Berkeley Los Angeles

INTERSTATE TEACHERS' BUREAU ATLANTA, GA.

Organized 1901. CONSERVATIVE MANAGEMENT. INTELLIGENT EFFORT. ENJOYS CONFIDENCE OF INSTRUCTORS AND OFFICIALS.

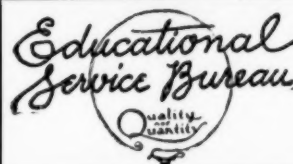
The **PARKER** The Agency that was built up thru
TEACHERS' AGENCY "The Parker Way." Write for ser-
MADISON, WISCONSIN vice anywhere in the great Northwest.

WE SPECIALIZE IN BRAINS

OUR SEVENTH YEAR OF RECOMMENDING ONLY WHEN ASKED TO DO SO BY SUPERINTENDENTS OR SCHOOL OFFICIALS. Two-thirds of all the State Institutions as well as the best schools in forty-two states and four foreign countries used our service the past year. Two private telephone exchanges, a special long distance line and our own operator in charge equip us especially to fill emergency vacancies. Tested and investigated teachers for any position our specialty. A DISTINCTIVE SERVICE for educators who appreciate ethical standards.

DEPARTMENT OF EDUCATION

THE WESTERN REFERENCE & BOND ASS'N, Inc.
699 Scarritt Bldg., Kansas City, Mo.



Three Classes of Teachers Who Should Enroll in Our Agency

- 1—Those who desire a better locality.
- 2—Those who want a better salary.
- 3—Those who possess average or more than average ability.

Write Manager C. E. White for booklet.
EDUCATIONAL SERVICE BUREAU
Handicraft Bldg., 89 So. Tenth St.
Minneapolis, Minnesota

The Interstate Teachers' Agency Macheca Building, New Orleans, La.

(Established 1902)

Recommends Superintendents, Principals, and Specialists

The Pratt Teachers' Agency

No. 70 FIFTH AVENUE, NEW YORK

RECEIVES calls at all seasons for college and normal graduates, specialists, and other teachers in colleges, public and private schools, in all parts of the country. Advises parents about schools.

WM. O. PRATT, Manager

Cline Teachers' Agency Columbia, Missouri

Recommends only when asked to do so by school officials directly. Write us for Superintendents, Principals or Teachers.

ALBERT TEACHERS' AGENCY 25 E. Jackson Boulevard, Chicago

34th Year
NEW YORK, 437 Fifth Ave. Our booklet, "Teaching as a Business," with
DENVER, Symes Building timely chapters on Peace Salaries, Prospects, Crit-
SPOKANE, Peyton Building ical Letters of Application, etc., sent free.

ALBANY TEACHERS' AGENCY, Inc. 81 Chapel Street ALBANY, N. Y.

PROVIDES SCHOOLS AND COLLEGES WITH COMPETENT TEACHERS.
ASSISTS TEACHERS IN SECURING POSITIONS
HARLAN P. FRENCH, Pres. and Treas. W. W. ANDREWS, Secretary

SCHOOL AND COLLEGE BUREAU 21 E. Van Buren St., CHICAGO

His services cost Boards of Education nothing. He has a splendid list of Superintendents and Teachers from which to select.

THE COLORADO TEACHERS' AGENCY

303-304 Kirtledge Bldg., Denver, Colorado

Twenty-five years' successful service in behalf of teachers and school officials. We operate in all Western States. REGISTER NOW.
FRED DICK, Manager. Co-operating Agencies—Harrisburg, Pa.; Atlanta, Ga.

The Acme Teachers' Agency Uses unique methods that eliminate trouble and worry in selecting teachers.
Make your calls for teachers on its Manager, A. C. Whitehead, 1131 Healey Bldg., Atlanta, Ga.

SCHERMERHORN TEACHERS' AGENCY Est. 1855

366 Fifth Ave., between 34th and 35th Streets, NEW YORK
CHARLES W. MULFORD, Prop. A superior agency for superior people. We register only reliable candidates. Services free to school officials.

Syracuse Teachers' Agency wants 500 Teachers to fill these positions in public and private schools extending its operations from the Atlantic sea board to the Pacific: Manual Training, \$1,500; Traveling Companions, \$1,500; Principals, \$2,200; Assistants, \$2,000; Languages, \$2,000; Physical Culture, \$1,500; Grammar, \$1,200; Primary, \$1,500; Music, \$1,500; Governesses, \$1,200; Drawing, \$1,500; Domestic Science, \$2,000; Kindergarten, \$1,500; Critic, \$2,200; Supervisors, \$2,000; Elocution, \$1,500; College, \$1,600; Normal, \$1,200; Rural, \$1,000; Physical Training, \$2,000.
Noah Leonard, Ph. D., Prop., Postoffice Lock Box 582, Dept. S, Syracuse, N. Y.



SETH THOMAS

Secondary Clocks FOR SCHOOLS

They maintain uniform time throughout the various class rooms and eliminate all the confusion and loss of time which arise from dismissing the various classes at different times.

Seth Thomas Secondary Clocks are connected with the master clock electrically and are absolutely synchronous with it at all times.

Write today for specifications and catalog describing Seth Thomas Secondary Clocks.

SETH THOMAS CLOCK CO.

Established 1813

Factories: Thomaston, Conn.

NEW YORK CHICAGO SAN FRANCISCO



Esterbrook

SCHOOL PENS



ALL our School Pens are made especially to assist the beginner to learn to use the pen freely and naturally. This No. 1000 has a fine point, is flexible, and writes a distinct line that can be shaded without effort. The steel for Esterbrook School Pens is processed expressly for making these pens. It is corrosion-resisting, has the necessary resilient firmness that permits flexibility without spreading and getting soft. Each pen is separately inspected to insure uniformity in writing performance.

Write for samples of Esterbrook School Pens.

THE ESTERBROOK PEN MFG. CO.
88-100 DELAWARE AVENUE
CAMDEN, N. J.

61st
Year

Esterbrook Pens

SYSTEMATIZE YOUR SCHOOL!



STYLE A60TF

If you do not already have a Program Clock System installed, why not do so now? There is no better time than the present for putting your school on a thoroughly systematic basis.

Others are getting the benefit of this efficiency-making equipment. Why not you?

Our prices are moderate — especially so when the service you will receive is considered. Let us quote you. No obligation to buy.

Send for catalog showing our complete line

LANDIS ENGINEERING & MFG. CO.
WAYNESBORO, PA.

Devoe School Water Colors

are made expressly for the use of children in America's public schools.



Box No. 118

They are made by us not for us in our Brooklyn factories and are perfectly adapted for the uses to which they are put.



Box No. 122

Catalog and full information, covering our entire line on request.

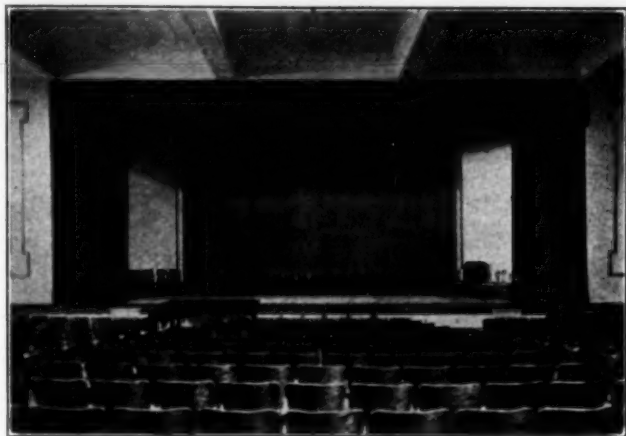
Devoe & Raynolds Co., Inc.

NEW YORK CHICAGO KANSAS CITY NEW ORLEANS

WILSON FOLDING PARTITIONS

(SECTION FOLD)

are necessary in every School



Partition on Auditorium Side.



Partition on Gymnasium Side.

An idea of the height of the partitions can be obtained by comparison with the piano shown on the right hand cut. They are 20 feet high.

SCHOOL, BAYONNE, N. J. D. G. Anderson, Architect.

Unsurpassed for subdividing rooms, providing additional blackboard surface and light. Can be made with connecting doors and to harmonize with old or new interiors. Simply constructed and easily operated.

Send for Catalog to

THE J. G. WILSON CORPORATION

Offices in principal cities

ESTABLISHED 1876

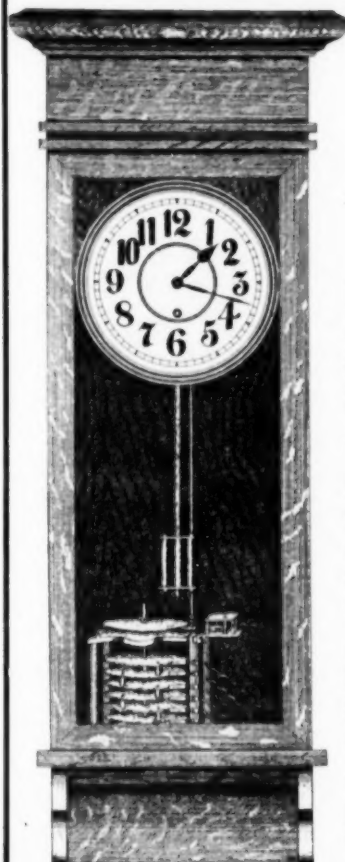
8 W. 40th St., N. Y. City

Manufacturers of Rolling Partitions, Hygienic Wardrobes, Diffuselite Blinds, Rolling Steel Doors, etc.

SUPERINTENDENTS

having used our

Signal System



if transferred to schools not having our system will always insist on the installation of the HANSEN.

Why? Because they know its great labor and worry saving qualities also that no school can afford to be without it. Among the many superior qualities of the "HANSEN" system, one of the most important is its adaptability for the electric light current, doing away with the battery nuisance. This is a point which should be investigated by prospective purchasers of Signal Systems.

Write for our catalog.

Hansen Manufacturing Company

PRINCETON, IND.

STANDARD

The Safest
in a Panic

Where Seconds Count

When the fire gong rings out its fateful warning and the tongues of flame dart in hot pursuit of fleeing children, time is vital. A minute's delay, even a second's hesitation, may mean confusion and disaster.

Standard Spiral Fire Escape

Fastest and Safest

Children never hesitate to slide down a spiral chute. They merely sit down and slide, sheltered from flames and heat, unable to recognize their dizzy height above the ground.

Small children progress as rapidly as the older and larger, for gravity carries them all alike.

Write for full description and free estimate of cost. Give floor heights.

STANDARD CONVEYOR COMPANY
(Formerly Minnesota Manufacturers' Ass'n)
NORTH ST. PAUL, MINN.

Chicago Office:
549 W. Washington St.



Installation of open Spiral
Fire Escape at St. Aemilian's Orphan Asylum,
St. Francis, Wis.

"It" Gets the Chalk Dust— Without Fuss or Muss

Here is a simple little Portable Electric Vacuum Cleaner that eliminates all the disagreeable, dusty features of cleaning school erasers. It cleans the erasers thoroughly, removing the dust without the wear and tear on the erasers incident to the old way of cleaning. Erasers cleaned the "Haynes Way" will last longer and always erase better, because—"No Dust Remains When They're Cleaned With the Haynes," while the cleaning is done quickly, without fuss or muss.

No dust in the school room, filling the air, because of poorly or improperly cleaned erasers. Cleaner erasers means cleaner blackboards, free from the "cloudy" appearance due to chalk dust remaining in the erasers cleaned the old dusty way.

The Haynes Electric-Vacuum Eraser Cleaner

Is equipped with Universal Electric Motor, is self-contained, absolutely "FOOL-PROOF" and will last a life time with ordinary care and attention. It is constructed of aluminum, is light and may readily be taken from room to room or permanently installed in the basement or other convenient place. With an extra supply of Erasers the Janitor may clean one set while School is in session and the other set is in use. This means a thoroly clean lot of Erasers every morning.

The Haynes Electric-Vacuum Eraser Cleaner means increased efficiency, cleaner schoolrooms, cleaner clothes, more contented pupils, and a material saving of School Funds.

The HAYNES ERASER CLEANER is manufactured exclusively by the National Wood Renovating Co., makers of "CASMIRE PROCESS" for renovating School Desks, famous from coast to coast and from the Great Lakes to the Gulf, and is sold under the same GUARANTEE OF SATISFACTION that enabled us to clean over 100,000 Desks this year. Every School Needs a HAYNES ELECTRIC-VACUUM ERASER CLEANER. Send your order today or write for Circular.

National Wood Renovating Co.

SOLE MANUFACTURERS.

319 East 8th Street,

KANSAS CITY, MO.



The operation of cleaning Erasers with the HAYNES ELECTRIC-VACUUM ERASER CLEANER is so simple that practically no directions or instructions are necessary. Anyone can use it and get splendid results. The illustration shows all there is to it. The operator simply passes the dust-filled Eraser back and forth a few times over the Brush, as shown in the picture, and just as rapidly as the Erasers can be thus handled they are cleaned absolutely clean.

The HAYNES ELECTRIC-VACUUM ERASER CLEANER positively will not tear or injure the Eraser in any way;

Will not fill the air with chalk dust while Erasers are being cleaned;

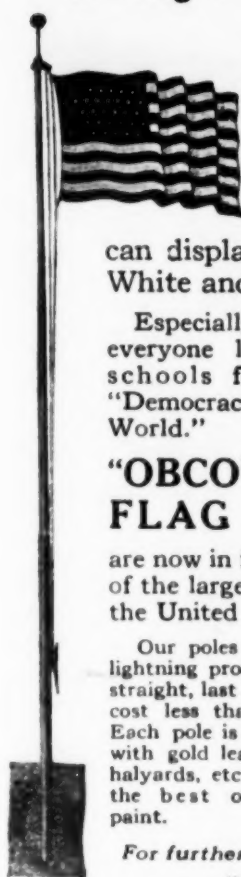
Will clean the Erasers in one-tenth the time required by the old "pounding" method. Must be used to be fully appreciated.

Price, Complete with Bag, ready to attach to electric socket and commence cleaning, \$37.50, f. o. b., Kansas City, Mo.

!

Notice: School Supply Jobbers, write today for our Special Jobbers' Proposition.

Is Your School Without a Flag Pole?



If it is, you should waste no time in having a steel pole where you can display the Red, White and Blue.

Especially now when everyone looks to the schools for making "Democracy Safe for the World."

"OBCO" STEEL FLAG POLES

are now in front of some of the largest schools in the United States.

Our poles are storm and lightning proof, smooth and straight, last a life time, and cost less than wood poles. Each pole is fitted complete with gold leafed zinc balls, halyards, etc., painted with the best of rust-resisting paint.

For further information write

OTTO BIEFELD CO.
School Department
Watertown, Wisconsin

Equip Your Schools with
FEDERAL
STEEL LOCKERS
AND SHELVING



FEDERAL
Steel Lockers
and Shelving

are made right
and priced moderately



ASK FOR CATALOG
**Federal Steel
Fixture
Company**
Chicago

THE AMERICAN School Board Journal

A Periodical of School Administration

Published on the first day of each month by
THE BRUCE PUBLISHING COMPANY

Wm. Geo. Bruce, President
Frank M. Bruce, Secretary and Publisher
Wm. C. Bruce, Vice-President and Editor
John J. Krill, Business Manager
H. Kasten, Subscription Manager

Publication Office: 354 Milwaukee Street, Milwaukee, Wis.
Eastern Advertising Office: 1 Madison Avenue, New York, N. Y.

Volume 59 NOVEMBER, 1919 No. 5

TABLE OF CONTENTS

Cartoon	25
County Community Organization	
Howard E. Shinner	26
Keeping Up In Teaching	
John C. Almack	27
School Morale	
Martin A. Seymour	30
My Dear Lester	
A. Boyd	33
The Opportunity of Education in Medical Inspection	
R. W. Fairchild	35
Hygienic Problems in Schoolhouse Construction	
Frank Irving Cooper	37
Duties of the School Nurse	
Bertha E. McChesney	39
Simplifying Enrollment and Attendance Records	
Supt. Otto W. Haisley	40
A Desirable Form of Age-Grade Table	
N. L. Engelhardt	42
Some Schoolhouses in Portland, Ore.—The Work of	
N. A. Naramore	44
A Study of Comparative Costs of Platoon System and	
Old Type of School Buildings	
C. L. Spain	48
Editorial	52
How To Secure An Adequate Supply of Trained Teachers For the Public Schools of the U. S.	
D. B. Waldo	54
Reducing the Difficulties in Rating and Grading of Teachers	
Chas. A. Wagner	54
Teachers Give Meal To Help Pupils	55
School Board News	56
Teachers' Salaries	57
For Busy Superintendents	58
New Rules and Regulations	62
Teachers and Administration	66
School Law	68
Personal News of Superintendents	78
Anti-Freezing Precautions for Schoolhouses	81
Free Textbooks: An Opposing View	
D. A. Allen	87
New Books	93
Building and Finance	99
After the Meeting	108
Buyers' News Column	108

Copyright, 1919; by the Bruce Publishing Company. All rights reserved.
Title registered as Trade Mark in the United States Patent Office.
Entered as Second Class Mail Matter in the Post Office at Milwaukee under Act of Congress of March 3, 1879.

Subscriptions—In the United States and Possessions, price \$2.00. In Canada, \$2.35. In foreign countries, \$2.50. Single copies, not more than six months old, 25 cents; more than six months old, 50 cents. Sample copies, 25 cents.

Discontinuances—Notice of discontinuance of subscriptions must reach the publication Office in Milwaukee, at least fifteen days before date of expiration, with full balance due to date. Notices for changes of address should invariably include the old as well as the new form of address. Complaints of non-receipt of subscribers' copies cannot be honored unless made within fifteen days after date of issue.

Editorial Material—Manuscripts and photographs bearing on school administration, superintendence, school architecture and related topics are solicited and will be paid for upon publication. Contributions should be mailed to Milwaukee, direct, and should be accompanied by stamps for return if unavailable. Open letters to the Editor must in all cases contain the name and address of the writer, not necessarily for publication, but as evidence of good faith.

Nelson's Steel Tubular Flag Staff

Equipped with Nelson Ball Bearing Halyard Carrier, so that Flag flies free, instead of wrapping around Flag Staff.



Can be furnished in any height.
Write for prices and information how to erect.

N. O. Nelson Mfg. Co.
St. Louis, Mo. Edwardsville, Ill.
Branches and Selling Agencies: Los Angeles, Calif.; Memphis, Tenn.; Pueblo, Colo.; Houston, Tex.; Salt Lake City, Utah; Birmingham, Ala.

The "Master Special" Keyless Padlock FOR SCHOOL AND GYM LOCKERS



Cut about 2/3 actual size.

The most economical and efficient locker-lock made. Operated on the "click system." (No dials, tumblers or visible numbers.) Simple in construction; built to give maximum service at lowest cost. Practically pays for itself in saving on key-replacements. **GUARANTEED.** Installations ranging from 200 to more than 5000 now making good in schools. Sample and Special proposition will be sent to School Superintendents or Principals, on request.

The J. B. Miller Keyless Lock Co.
KENT, OHIO, U. S. A.

HYLOPLATE

TRADE MARK

BLACKBOARD

Made in two Colors

Black and Green

"THE OLD RELIABLE"

THE LOW COST BLACKBOARD

Years of "distinguished service" in the schools of this country have made OLD RELIABLE HYLOPLATE the recognized standard material for blackboards.

OLD RELIABLE HYLOPLATE is manufactured by blackboard experts to give blackboard service and not to meet a price. OLD RELIABLE HYLOPLATE has always cost more in the making and necessarily sold for a higher price than any other composition blackboard, but its durability makes it the most economical blackboard for universal use.

Exclusive manufacturing processes in the production of OLD RELIABLE HYLOPLATE coupled with a thorough knowledge of school requirements gained from over a third of a century of experience in catering to school needs are the basic reasons for the superiority of OLD RELIABLE HYLOPLATE.

It requires 96 operations to make a slab of OLD RELIABLE HYLOPLATE, ninety six distinct operations before the perfect piece of blackboard is ready for shipment to your school. The high quality, durability and dependability of OLD RELIABLE HYLOPLATE is due first to the raw material, second to the constant supervision and inspection through all of the separate operations in manufacture.

When you specify OLD RELIABLE HYLOPLATE you specify satisfactory results. A double guarantee is given you on every foot of OLD RELIABLE you purchase, that of the manufacturer and that of a dependable jobber of school supplies, a jobber known to you as reliable.

The QUALITY and DURABILITY of OLD RELIABLE is guaranteed, but its years of actual service in schools is absolute assurance of pre-eminent satisfaction. For your protection against substitution, HYLOPLATE is die cut on the back of every slab of Old Reliable. Look for this trade mark.

THE BLACKBOARD TRIO

TIME TRIED—TIME TESTED

OLD RELIABLE HYLOPLATE—the universal blackboard—the most durable, ALPHA DUSTLESS CRAYONS—the first and best of the dustless crayons, COSTELLO DOUBLE SEWED ERASER—the last word in a perfect sewed blackboard eraser, assure the utmost in economy. The use of these three products is a positive guarantee of satisfaction. Used in combination the best results are obtained.

Order Your Requirements From Your Nearest Dealer

OLD RELIABLE HYLOPLATE and all of W-C "Time Tested" School Supplies are carried in stock ready for shipment by dealers in all parts of the country, insuring quick service.

WEBER COSTELLO COMPANY, : Chicago Heights, Ill.

Manufacturers of W-C "Time Tested" School Supplies

BACON SEMI-CONTOUR WALL MAPS
GEOGRAPHICAL GLOBES—38 years experience
COSTELLO HANGING GLOBE—13 years
WEBER NOISELESS AND DUSTLESS ERASERS—26 years

COSTELLO DOUBLE SEWED ERASERS
UNIVERSAL and MANHATTAN ALL FELT ERASERS
SANITARY BLACKBOARD ERASER CLEANER

ALPHA DUSTLESS CRAYON—50 years
LIQUID SLATING—46 years
COSTELLO AUTOMATIC MAP CASES
BACON STANDARD WALL MAPS

